EXAMINING THE ROLE OF THE SPECIAL EDUCATOR IN A RESPONSE TO INTERVENTION MODEL

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ABSTRACT

The purpose of this observational study was to examine the role of the special educator within a response-to-intervention (RTI) framework and to examine what instructional behaviors special educators evidence most frequently in the advanced RTI tiers. Specifically, these two issues were investigated with regard to: (a) proportion of the special educator's time spent in the four key roles as defined by the literature (i.e., collaborator, interventionist, diagnostician, manager); (b) within each key role, in what behaviors do special educator evidence most frequently; (c) instructional practices that are used most frequently by the special educator; and (d) instructional practices used by special educators aligned with effective instructional practices that have been identified in the empirical literature. Seven special educators participated in this study. Over 7000 minutes of observational data was collected focusing on role components and instructional practices. Interviews were also conducted with all participants. Role component observational data showed that special educators are required to perform a wide array of tasks in various settings in collaboration with multiple professionals, students and parents. Instruction observational data showed that special educators are using their limited amount of instructional time in practices which produce the greatest effects, but there were little differences noted between instructional practices in the advanced tiers of instruction.

DEDICATION

To my mother and father, thank you for instilling in me the belief that all things are possible. Thank you for always, from the first moment of my existence, believing in my *abilities*. I am grateful for your support and encouragement. My deepest appreciation to both of you, for raising a child with a disability who never felt as if she was limited in any way. It is only because of you that this milestone in my life was ever dreamed of or accomplished. I love you both more than words can express.

"I thank you for the moments of your life
And never giving up on me

And you held me through it all
And you never let me fall
And you let me fly away
And you always believed"

"You Always Believed" by IN THIS MOMENT

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CHAPTER I

INTRODUCTION

The 1983 report *A Nation at Risk*, a landmark indictment of U.S. public schools, prompted increased attention to educational improvement (U.S. Department of Education, 1983e, April). Included among the responses to the report were a host of initiatives referred to as Comprehensive School Reform (CSR) that focused on a broad array of school-wide improvements, ranging from curriculum to school management (Berends, Bodilly, & Kirby, 2002; Desimone, 2000; D. Fuchs & Fuchs, 1994; Rowan, Camburn, & Barnes, 2004).

Also referred to as "schoolwide" or "whole school" reform, CSR was subsequently incorporated into the 1994 reauthorization of the Elementary and Secondary Education Act or ESEA. As part of the reauthorization, schools in which at least 50% of the student population was disadvantaged were encouraged to implement school-wide reforms (U.S. Department of Education, 1996a, September).

To further these efforts, in 1997, Congress created the Comprehensive School Reform Demonstration program (CSRD), which was designed to provide formula grants to state education agencies (SEAs), which in turn could provide competitive grants to local education agencies (LEAs) that would implement a school-wide reform model (U.S. Department of Education, 2003b). In 2001, when Congress approved the No Child Left Behind Act (NCLB), a new reauthorization of the ESEA, components of CSRD were incorporated directly into Title I. Thus, under Title I, schools identified as needing improvement must pursue strategies designed to improve achievement, including comprehensive school reform (Borman, 2009). In 2004, the reauthorization of the Individuals with Disabilities Act (IDEA) was revised to align with the statutes related to comprehensive school reform in NCLB. Most recently, in 2009, the American

Recovery and Reinvestment Act (ARRA) provided approximately 100 billion dollars to save and create jobs and to reform education through various funding streams, including Part B of IDEA where schools were encouraged to examine the broader context of school wide reform initiatives designed to improve learning outcomes for all students (U.S. Department of Education, 2009). These legislation efforts sought to address the educational needs of students through comprehensive school reform models.

A host of comprehensive school reform efforts have sought to address the demands of legislation and, in the process, the needs of our educational system. For example, Borman et al. (2002) conducted a meta-analysis of CSR programs and identified a number of models that show evidence of success, such as Accelerated Schools (Levin, 2005), Career Academies (Maxwell & Rubin, 2000), Direct Instruction (Adams & Engelmann, 1996; Schieffer, Marchand-Martella, Martella, Simonsen, & Waldron-Soler, 2002), and Success for All (Slavin & Madden, 2001). In addition, Borman (2002) found that when whole-school reform is implemented well and over an extended period of time, it is effective in transforming schools. Furthermore, regardless of the model utilized, faithful implementation of a research-based comprehensive school reform model is associated with improvements in student achievement (Borman, Hewes, Overman, & Brown, 2002; Tucci, 2009).

One comprehensive school reform model that has emerged in recent years is response to intervention (RTI), a multi-tiered intervention framework (Hoover, Baca, Wexler-Love, & Saenz, 2008) designed to maximize student achievement and reduce behavior problems (Jimerson, Burns, & VanderHeyer, 2007; National Center on Response to Intervention, 2010). As such, RTI is a school-wide process that integrates instruction, intervention, and assessment to promote a stronger, more cohesive program of instruction that can ultimately result in higher

student achievement (Mellard & Johnson, 2008). With RTI, schools identify students at risk for poor learning outcomes, monitor their progress, provide evidenced-based interventions, adjust the intensity and nature of those interventions depending on a student's responsiveness, and identify students with specific learning disabilities (National Center on Response to Intervention, 2010). RTI advocates advance this reform model because of its potential to provide appropriate learning experiences for all students as well as to identify students at risk for academic failure early (Johnson & Smith, 2008).

Numerous districts and schools across the nation either have or are adopting an RTI framework (Hoover, et al., 2008; Jimerson, et al., 2007; Vaughn et al., 2010). In 2010, a survey of district administrators found that 61% had implemented an RTI educational framework or were in the process of implementation of RTI throughout. Further, among respondent districts that had sufficient data to determine the impact of RTI, 76% indicated RTI has led to an improvement in adequate yearly progress (AYP) vs. 24%, which indicated it has not led to an improvement in AYP (Samuels, 2011).

In spite of these general successes, stakeholders have raised concern about areas where more attention must be focused to ensure the success of RTI. The following issues have surfaced: (a) Is RTI a general education or special education initiative? (b) What is the role of the special educator in an RTI framework? and (c) What does instruction look like in the advanced tiers of RTI (that is, tiers beyond Tier 1)?

With regard to whether RTI is a special education or general education initiative, those who conceptualize RTI as a special education initiative do so because they believe that RTI would be best suited if used primarily for the identification of students with disabilities, in particular, learning disabilities (LD) (Batsche, Curtis, Dorman, Castillo, & Porter, 2008;

Fletcher, Denton, & Francis, 2005; Peterson & Shinn, 2002; S. Vaughn & L.S. Fuchs, 2003).

The history of RTI is deeply intertwined with the construct of LD, and for some, current interest in RTI is, in part, a response to pressures surrounding the lack of a universally accepted definition of specific LD and methods for identifying students who have them (Graner, Fagella-Luby, & Fritschmann, 2005). In an RTI identification model, emphasis would be switched from assessment for identification in an IQ-achievement discrepancy model to assessment for instructional decision making. Using a responsiveness model for LD identification and adhering to the model's essential components (i.e., universal screening, progress monitoring, multi-level intervention, data-based decision making) (National Center on Response to Intervention, 2010) increases the probability that students who are identified as LD are, indeed, the students with the greatest academic needs.

In contrast, IQ-achievement discrepancy models may focus attention and resources on identification at the expense of targeting effective instructional strategies once a diagnosis is made. Some have argued that a responsiveness model keeps the focus on the students' learning because the student is continually receiving instruction and then monitored to see how responsive students are to the instruction they receive (Fletcher, et al., 2005; Speece, Case, & Melloy, 2003; S. Vaughn & L.S. Fuchs, 2003).

Those who conceptualize RTI as primarily a special education initiative also argue that Tier 3 (or the last or most intensive tier of intervention in a tiered model) is only for special education or students with individualized education programs (IEP) (D. Fuchs, 2010; Vaughn, et al., 2010). Students who do not respond to Tiers 1 and 2 and who are subsequently referred to Tier 3 for more intense interventions may be formally identified for special education services at the same time. Data must demonstrate that either the intensity or type of intervention required to

improve these students' performance exceed the resources and capacity in general education settings or in Tiers 1 or 2 of intervention (Johnson & Smith, 2008).

At the other end of the continuum are those who conceptualize RTI as primarily a general education initiative. General educators across the country recognize how difficult it is to meet the needs of an increasingly diverse student population in their classrooms while budgets are shrinking, resources are diminishing, and demand for higher achievement is increasing (Duffy, 2008).

All of the students who are struggling in schools today are not likely to qualify for special education services. These services are frequently the only way to provide extra academic or behavioral support in many districts (D. Fuchs & Fuchs, 2005). Effectively implemented, RTI is designed to offer support to students who need it by focusing assistance on addressing their specific academic deficits without labeling or putting them through a time-consuming determination process (D. Fuchs, Fuchs, & Compton, 2004; L. S. Fuchs & Fuchs, 2006). By viewing RTI as a whole-school approach that involves multiple tiers of increasing supports and interventions, teachers continuously assess how students are doing and provide assistance as soon as it is needed (Stecker, Fuchs, & Fuchs, 2008; Tilly, Reschly, & Grimes, 1999; S. Vaughn & L. S. Fuchs, 2003).

Proponents of this approach suggest that students don't fall further behind or through the cracks but get immediate access to small-group instruction that targets whatever gap appears without being isolated from ongoing classroom instruction (McMaster, Fuchs, Fuchs, & Compton, 2005; Murawski & Hughes, 2009; Vaughn, et al., 2010; S. Vaughn & L. S. Fuchs, 2003).

Regardless of how RTI is currently conceptualized and implemented, it was initially

rooted in special education as a tool for dealing with the behavioral and academic challenges presented by students with disabilities, but it has now been expanded to be a framework for addressing the educational needs of all students (Cummings, Atkins, Allison, & Cole, 2008). Addressing the educational needs of all students requires a school-wide initiative where a wide array of stakeholders collaborate and where roles are clearly defined (Murawski & Hughes, 2009). Thus, the second general issue raised by stakeholders is "what is the special educator's role in RTI?"

Collaboration and role definition are important factors that must be understood by all for RTI to be successful (Fisher & Fry, 2001; D. Fuchs & Deshler, 2007). Collaboration is the interaction between professionals who offer different perspectives and areas of expertise but share certain responsibilities and goals (Friend & Cook, 2007; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). It involves the need for all parties to participate actively (Snell & Janney, 2000; Turnbull, Turnbull, Erwin, & Soodak, 2006), and in order for this full participation to take place, all participant must be aware of the role they play in the process of RTI implementation (D. Fuchs & Deshler, 2007).

Reschly (2003) presented a four-tiered model of RTI, and while he acknowledged that the roles of teachers would have to change, he neglected to provide sufficient details about which personnel would be responsible for the various components of instruction and implementation of the model. In 2007, the Council for Exceptional Children (CEC) addressed the impact that RTI implementation can have on the role of the special educator. CEC proposed that special educators should have an integral role and a strong and clear identity in the RTI process. The organization further stated that general educators should be the primary interveners, with special educators serving as members of problem-solving teams in Tiers 1 and 2. Conversely, special

educators were seen as the primary interveners in Tier 3, or the highest tier. Although CEC took a position on the "unique" role of the special educator in an RTI framework, it provided no empirical evidence to support this position (Council for Exceptional Children, 2007).

More recently, Simonsen et al. (2010) asserted that the role of special educators should be redefined as interventionists within a school-wide model of instructional and behavioral supports to (a) support all students and (b) effectively address the intent to provide a free appropriate public education in the least restrictive environment. Simonsen and colleagues went on to state that the success of a school-wide RTI model requires the participation of special educators in and across all tiers of intervention and instruction (Simonsen et al.), which, in turn, requires a shift in the special educators' role from solely providing services to students with IEPs to providing services to all students who are struggling to achieve. Finally, Simonsen and colleagues believe that special educators can be "integrated seamlessly" into a school-wide RTI model but emphasize repeatedly the critical need for research to substantiate these roles and configurations.

Finally, questions have been raised as to what exactly constitutes instruction at the advanced tiers. Some RTI models have as few as two tiers of instruction, whereas others have as many as four (D. Fuchs, Mock, Morgan, & Young, 2003). The nature of the academic intervention is to change at each tier, becoming more intensive as students move across the tiers (D. Fuchs, Compton, Fuchs, Bryant, & Davis, 2008). Ideally, increasing intensity is achieved by (a) using more teacher-mediated, systematic, and explicit instruction; (b) creating smaller and more homogeneous student groupings; and/or (c) using teachers with greater expertise (L. S. Fuchs & Fuchs, 2006). If the premise of having a tiered model is to provide instruction that intensifies as students move across the tiers based upon student need, then what should operationally define the specific instructional practices that constitute "intensity" at each tier?

Studies have been conducted regarding the grouping of students (Little, 2009; Mellard & Johnson, 2008) and the instructional intensity and duration of instruction in different RTI tiers (Vaughn & Roberts, 2007), but to date, no studies have examined the specific instructional practices (e.g., modeling, questioning, feedback, monitoring) that constitute instruction at the advanced tiers of RTI models.

Purpose of the Present Study

Given how closely RTI is linked to special education and the limited research on the role of the special educator and the nature of instruction in the advanced tiers of an RTI framework, this study was designed to add to this body of knowledge. Thus, the general purpose of this investigation was to examine the role of the special educator in an RTI framework. Specifically, the study was designed to first examine the overall role of special educators and then to look at the instructional practices they use, in particular how those instructional practices differ at the advanced tiers of instruction in an RTI model. As such, this study extends the previous research around RTI by including the role of the special educator as a vital part of success of an RTI model and by addressing the major limitations of current research on RTI as a school reform model.

CHAPTER II

LITERATURE REVIEW

Response to Intervention (RTI) is a multi-tiered school-wide approach to providing the most appropriate instruction, services, and evidence-based interventions with increasing intensity at each tier (Cortiella, 2005). Additionally, RTI is a framework for providing comprehensive support to students. Finally, it is a prevention-oriented approach that links assessment with instruction. This linkage helps educators make informed data-based decisions about how to teach their students(D. F. Mellard & Johnson, 2008). The overarching goal of RTI is to minimize long-term learning failure for students by responding quickly and efficiently to student needs. In addition to decreased learning failure for all students, the goal of RTI also includes appropriate identification of students with disabilities (D. Fuchs, Fuchs, & Compton, 2004; Gresham, 2007; Torgeson et al., 2001).

Thus, RTI has four fundamental purposes: (a) integrate student assessment and instructional interventions; (b) employ a multi-level intervention system; (c) maximize student achievement and reduce behavioral problems; and (d) ensure appropriate identification of students with disabilities (Graner, Fagella-Luby, & Fritschmann, 2005; J. J. Hoover, Baca, Wexler-Love, & Saenz, 2008; National Center on Response to Intervention, 2010). Two main applications of RTI are typically implemented in schools. The first, the use of RTI as a way to identify students with disabilities, is the more common application of the model. While the focus is still on prevention of failure, the emphasis is on disability identification (D. Fuchs et al., 2004; D. Fuchs, Mock, Morgan, & Young, 2003; Gresham, 2007). The other application is the use of RTI as a school reform model. Here the main goal and emphasis is prevention of failure for *all*

students. RTI and its use as a school reform model will be the basis for this literature review (Gresham, 2007; Iverson, 2002).

This literature review is divided into three sections. The first section will (a) present a detailed description of RTI, beginning with a discussion of the essential components of a successful RTI model (National Center on Response to Intervention, 2010); (b) summarize the two most common approaches to RTI implementation (i.e., standard treatment protocol and problem solving) (D. Fuchs & Deshler, 2007; Graner, et al., 2005); and (c) describe conditions and supports necessary for successful RTI implementation (Deshler & Tollefson, 2006; D. Fuchs & Deshler, 2007).

The second section of this review presents an historical overview of the role of special educators (J. Hoover & Patton, 2008). This section also summarizes the literature on the role of the special educator within an RTI framework focusing on four key aspects of their role: (a) collaborator, (b) interventionist, (c) diagnostician and (d) manager (Cummings, Atkins, Allison, & Cole, 2008; J. Hoover & Patton, 2008; Simonsen et al., 2010; Wasburn-Moses, 2005; Weiss & Lloyd, 2002; Werts, Lambert, & Carpenter, 2009).

Finally, the third section of the review has two foci. First, it summarizes the literature on instruction in the advanced tiers of a RTI framework. Second, it summarizes the literature on effective instructional practices used with students with disabilities.

RTI: Features, Approaches, Conditions and Supports

RTI Essential Components

RTI, a multi-tiered instructional framework, gives states, districts, and schools choices of how they will apply this framework to their particular setting. Because of this opportunity to individualize and tailor the model to meet student and school needs, RTI often looks very

different from setting to setting (Deshler & Tollefson, 2006). Nevertheless, four essential components of RTI must be present in order to be considered an RTI model: (a) data-based decision making, (b) universal screening, (c) progress monitoring, and (d) multi-leveled system of intervention. Of these four components, data-based decision making is central, with the other three components linked closely together to create the RTI model (Gresham, 2007; Iverson, 2002; Jimerson, Burns, & VanderHeyer, 2007; D. F. Mellard & Johnson, 2008; National Center on Response to Intervention, 2010).

The following is an example of how the four components of RTI may be operationalized. A school wishing to implement RTI would first establish a baseline of student achievement by a beginning-of-the-school-year universal screening process and extensive assessment of all students. This universal screening process would require that assessments be given to all students to determine which level of intervention is suitable for each student.

After deciding the appropriate level of intervention, students would receive tailored instruction. During implementation of instruction, the progress of each student is monitored, collection of more data takes place, and decisions are once again made as to the appropriateness of instruction. Continual progress monitoring, modifications of instruction, and movement of students across levels of intervention would continue to occur throughout the school year. A referral would be made for a possible disability determination if the student is unresponsive to the evidence-based, tailored instruction they received based upon universal screening data. Thus, the multi-level intervention system supports early identification of learning and behavioral challenges.

Most RTI models consist of three levels of intervention, primary, secondary, and tertiary (D. Fuchs, et al., 2003; D. F. Mellard & Johnson, 2008), that represent a continuum of supports.

The primary level of intervention consists of high-quality core instruction that meets the needs of most students. This level includes a research-based core curriculum, differentiated learning activities, and universal screening (Cortiella, 2005; D. Fuchs, et al., 2003; Gresham, 2007; National Center on Response to Intervention, 2010).

The secondary level of intervention includes the use of evidence-based interventions of moderate intensity that addresses the learning or behavioral challenges of most at-risk students. There are three distinguishing characteristics of secondary-level interventions: (a) evidence-based; (b) adult-led small-group instruction; and (c) fidelity of implementation of each step within the intervention (D. Fuchs, Compton, Fuchs, Bryant, & Davis, 2008).

The tertiary level of prevention differs from the secondary level in that the focus is on individualized instruction of increased intensity for students who showed minimal response to secondary-level interventions. The tertiary level of intervention also includes frequent progress monitoring and, based on student progress, frequent modifications in instruction (McMaster, Fuchs, Fuchs, & Compton, 2005; D. F. Mellard & Johnson, 2008; Vaughn & Fuchs, 2003).

Once instruction is given, students are evaluated on their response, and decisions are made about what level of intervention they are to receive, which in turn will determine the intensity of instruction (D. Fuchs & Deshler, 2007). Are they to continue to receive instruction from the current level, or do they need a different intensity of instruction? Students who are not responding to the current level of intervention and intensity of instruction and, therefore, need to move to a more intense level are labeled “non-responders.”

The research literature suggests at least five methods for determining responsiveness (D. Fuchs & Deshler, 2007): (a) median split (Velluntino et al., 1996); (b) normalization (Torgeson, et al., 2001); (c) final benchmark (Good, Simmons, & Kame'enui, 2001); (d) dual discrepancy

(L. S. Fuchs & Fuchs, 1998; Speece & Case, 2001); and (e) slope discrepancy (D. Fuchs, et al., 2004). These alternative RTI methods, measures, testing frequencies, and cut points may be applied in various combinations.

In summary, the essential components of an RTI model are (a) universal screening, (b) data-based decision making, (c) progress monitoring, and (d) a multi-tiered system of instruction. Many reform efforts are being implemented by schools and school districts around the country. In order for a reform effort to qualify as RTI, it must possess these essential components.

Approaches to Implementation

Two commonly used RTI approaches incorporate the previously mentioned essential components and responsiveness determination methods: standard treatment protocol and problem-solving protocol (Graner, et al., 2005; Johnson, Mellard, Fuchs, & McKnight, 2006; D. F. Mellard & Johnson, 2008). While these two approaches to RTI are sometimes described as being very different from each other, they share several common elements, and both can fit within a problem-solving framework (Duffy, 2008). In order to fit a school's needs, many times, aspects of the two approaches are combined. However, for clarity, these two approaches will be described separately.

Standard treatment protocol. A standard treatment protocol approach (STP) follows a typical research-based protocol to deliver a selected intervention for all students with similar learning and/or behavioral difficulties. STP follows a series of four iterative steps: (a) assess, (b) identify problems, (c) intervene, and (d) assess. Options for treatment interventions are selected from the standard treatment protocol. The intent is for the STP to ensure fidelity of treatment, and the protocol uses only empirically supported instructional approaches (D. Fuchs, Fuchs, Mathes, & Simmons, 1997; McMaster, et al., 2005).

STP approaches have been illustrated in the work of such researchers as Torgesen et al. (1999), Vaughn, Linan-Thompson, and Hickman (2003), and Velluntino et al. (1996). In 2003, Vaughn and colleagues conducted a study with 45 second-grade students at risk for reading problems. The students were provided daily supplemental reading instruction that was uniform in scope and sequence. Assessments were given after 10 weeks to determine if they had met a predetermined criterion for exit. Students who met the criterion no longer received instruction. Students who had not responded to instruction were regrouped, and received daily supplemental reading instruction that was of uniform scope and sequence for an additional 10 weeks. After 20 weeks of supplemental instruction, students who had still not meet criteria were provided another 10 weeks of instruction. Finally, after 30 weeks, students who still did not respond to instruction were referred for evaluation and possible identification to receive special education services (Vaughn & Fuchs, 2003).

Problem-solving protocol. Like the standard treatment protocol, the problem-solving protocol also follows a series of steps, assess, identify the problem, intervene, and assess. However, it differs from the standard treatment protocol in its level of individualization and the depth of analysis conducted prior to the selection of an intervention. As a result, some see the problem-solving approach as more flexible than the standard protocol (Tilly, Reschly, & Grimes, 1999).

Unlike the standard treatment protocol, the problem-based approach is designed to focus on subskills using specific, targeted interventions that follow a process that requires teams of educators to assess student performance, identify problems, develop a plan to address the problem, and assess the effectiveness of the plan. Some believe that the problem solving approach provides more flexibility in tailoring an intervention to the students needs because of

the involvement of a team selecting from a broad array of interventions (Iverson, 2002).

One example of the problem-solving approach employed on a state-wide basis is Ohio's Intervention Based Assessment (IBA) (Telzrow, McNamara, & Hollinger, 2000). Ohio's IBA components are implemented by a school's multidisciplinary team that minimally includes the principal, school psychologists, general education teachers, special education teachers, and parents. As described by Telzrow et al., IBA involves implementation of eight components, including (a) a behavioral definition of a target behavior, (b) direct measure of the student's behavior in the natural setting (baseline data), (c) specific goal setting, (d) hypothesized reason for the problem, (e) an explicitly stated intervention plan, (f) evidence of treatment integrity, (g) student response data, and (h) comparison of post-intervention and baseline data (Telzrow, et al., 2000).

Conditions and Supports

Certain conditions must be in place in a school or district to support successful implementation of RTI (Deshler & Tollefson, 2006; D. Fuchs & Deshler, 2007). Often, implementation that is less successful may be caused by a lack of supporting conditions (Deshler & Tollefson, 2006). Effective implementation of RTI is dependent on the following supports: (a) professional development for school staff to provide them with the knowledge and skills needed to implement interventions at each level of prevention; (b) administrative support of the use of interventions and provision of resources to help ensure fidelity of implementation; (c) district support to hire teachers who possess the skills and knowledge needed to implement RTI; (d) motivation and willingness of all stakeholders to evolve and change their roles as needed; (e) time provided to educators to incorporate RTI into their current practices; and (f) consideration and appreciation of the value of the ideas, thoughts, and beliefs of all stakeholders as they relate

to incorporation into implementation of RTI (D. Fuchs & Deshler, 2007).

Successful implementation of RTI also requires the availability to teachers of evidence-based interventions and measures of learning over time. Currently, these tools are available for some but not all academic levels and are better developed at some grade levels (Vaughn et al., 2010). For example, a substantial body of work on reading interventions is available, but there is a marked shortage in the other areas such as math and writing. The same is true for grade level; to date, most of the focus has been on interventions for the elementary grades, so by comparison there is less information about interventions in the secondary setting (L. S. Fuchs, Fuchs, & Compton, 2010; Vaughn, et al., 2010).

Further, as with any identification model, there are also certain contextual factors that must be considered. Mellard, Deshler, and Barth (2004) and Gerber (2005) discuss factors such as (a) parental involvement; (b) teacher tolerance (i.e., what one teacher deems as unresponsiveness another may deem as low responsiveness); (c) ethnicity and or socio-economic (SES) status; and (d) other services available for students who struggle to learn. They warn that such factors must not only be acknowledged but must be accounted for when attempting to understand the complete nature of learning disabilities (LD**)** identification decision making.

Finally, there are major differences between elementary and secondary school settings (e.g., scheduling, content difficulty, organizational structure), and these have influenced the implementation of RTI in these settings. For example, the measurement of what constitutes responsiveness is critical to effective RTI implementation at all grades, but it differs in elementary and secondary settings (L. S. Fuchs, et al., 2010). Specifically, the focus of elementary RTI is on monitoring response to intervention for the purpose of introducing greater intensity of interventions only as needed and working hard to avoid the need for prolonged

intensive intervention and/or remediation. The focus of secondary RTI, on the other hand, is to reduce and eliminate already existing academic deficits.

Consequently, the role of the secondary educator in an RTI model is quite different from the role of an elementary educator in a RTI model; the secondary educator's goal is to move students *out* of the tertiary level of prevention, whereas the goal of the elementary educator is to keep the students from entering the tertiary level (L. S. Fuchs, et al., 2010). Conceptualizing RTI in this way, an elementary vs. a secondary construct, has major implications for the large-scale success of an RTI model. In order for RTI to be a successful large scale school reform model, how RTI is conceptualized must be shared by both elementary and secondary educators to ensure a seamless and smooth transition from one setting to the next.

In summary, RTI models contain the following common key components: data-based decision making, universal screening, progress monitoring, and multi-leveled system of intervention. Within the multi-leveled system of intervention there are three levels of intervention: primary, secondary, and tertiary. Two approaches are commonly used when implementing an RTI model, standard treatment protocol and the problem-solving model. Further, a host of conditions, supports, and contextual factors must be attended to in order for implementation of RTI to be successful.

Role of the Special Educator

Historical Overview

The roles of special educators have evolved over time and have changed with contemporary educational mandates (J. Hoover & Patton, 2008; Simonsen, et al., 2010; Wasburn-Moses, 2005). To best understand this evolving role, a historical overview of the role of special educators over the past several decades is presented here.

As far back as the 1960s, the Council for Exceptional Children (CEC) was developing, refining, and promoting professional standards and competencies for teachers of students with disabilities (Council for Exceptional Children, 1998, 2005; O'Shea, Hanmittee, Maninzer, & Crutchfield, 2000). The CEC professional competencies include a variety of knowledge and skill sets related to areas such as leadership, communication, instruction, assessment, and collaboration (J. Hoover & Patton, 2008).

Every decade since that time has seen numerous revisions to those competencies (Council for Exceptional Children, 1998, 2005) to reflect the professional thinking concerning the education of students with disabilities, in particular, educational placements and services. Services for students with disabilities have changed from placement in self-contained classrooms to resource rooms, to inclusion settings. As a result, the interpretation of the role of the special educator has evolved.

In the 1960s, a primary role of the special educator was to educate learners with disabilities in a self-contained classroom using special materials and strategies (e.g., ITPA, Kephart, and Frostig Methods). An explosion of training programs appeared in the 1960s for children with LD to remediate psychological processing and/or visual-perceptual processing deficits. Illinois Test of Psycholinguistic Abilities (ITPA) (Kirk, 1962) was an assessment that consisted of 12 subtests: visual reception, auditory reception, visual association, auditory association, verbal expression, motor expression, visual sequential memory, auditory sequential memory, visual closure, auditory closure, grammatic closure and sound blending (Mercer & Hallahan, 2002). How the student performed on the subtests determined how a teacher was to concentrate remediation. Like the ITPA, Kephart's theory included motor ability and cognitive capacity. Two aspects of Kephart's theory were what he referred to as the "perceptual-motor

match" and his belief that laterality, the ability to discriminate the left and right side of the body, is necessary in order for children to discriminate left from right in space. He viewed children who had difficulties with reversals of what? as needing training in laterality (Mercer & Hallahan, 2002). Skill sets required for special educators during this time included knowledge of highly specialized programs, ability to teach numerous content areas, and implementation of special programs and strategies to address different disability needs (e.g., process training) (J. Hoover & Patton, 2008).

During the 1970s, the effectiveness of process-related practices came into question (Cohen, 1970; Hammill, 1972; Hammill & Larsen, 1974). More direct teaching strategies emerged, requiring special education teachers to assume new roles in implementing instruction. Placement of students with disabilities also changed during the 1970s, following Dunn's article (1968), which questioned the practice of special, self-contained education.

A different concept of education for students with disabilities began to emerge. Students with disabilities were being educated in the general education classroom while being pulled out only for specific times where remediation was deemed necessary in academic areas (Gearheart, Weishahn, & Gearheart, 1991). In order to support this concept of education, the role of the special education teacher evolved from teaching the same type of learners all day in one classroom to the very different role of providing remediation to many different learners in specific academic areas for part of the day, coupled with providing support to general education teachers for part of the day.

Knowledge and skills required of the special educator to implement this resource room role included the ability to (a) remediate core skill or strategy area needs, (b) manage a classroom in which students filter in to receive remedial instruction and then filter back out to the

general education classroom, and (c) teach students to generalize skills taught in the resource room to help complete tasks in the general education setting. Additionally, they must also have the ability to maintain a strong working relationship with a variety of staff as well as consultation skills to work with general educators (Harris & Schutz, 1986; Wiederholt, Hammill, & Brown, 1993).

Mainstreaming (i.e., placing students with disabilities in the general education classroom a majority of the time and with additional support in the resource room when needed) continued in the 1980s (Gearheart, et al., 1991). This form of education required the role of the special educator to continue to move toward the combined tasks of providing direct instruction along with providing supports to the general education teacher (McCoy & Prehm, 1987). Knowledge and skills necessary to best support this role included abilities to consult with other educators, develop educational programs to be implemented in the general education classroom and involve parents in the education process, as well having the knowledge of a variety of teaching and behavior strategies that may be used in the general education classroom to meet a variety of special needs.

The 1990s was spent expanding on the efforts to enhance education in the 1980s, with an emphasis on mainstreaming, now called *inclusion* (Kavale & Forness, 2000). Inclusion initially began with inclusive classrooms but quickly moved into the concept of inclusive schools (D. Fisher, Frey, & Thousand, 2003; Kauffman & Hallahan, 1995). The role of the special educator during this time included greater emphasis on collaboration with general educators to best meet a wider range of special needs in the general education setting. Knowledge and skills needed by special educators included differentiating instruction, monitoring student progress, assessment, and communication (D. Fisher, et al., 2003).

As education progressed through the first decade of the 2000s, students with disabilities increasingly received their education within multi-tiered instruction using response to intervention as a primary way of instructional decision making (Embich, 2001; J. Hoover & Patton, 2008).

Role of the Special Educator and RTI

Several challenges exist for special educators in their roles within multi-tiered instruction: (a) ensuring that seamless levels of support exist among and across tiers; (b) providing the most appropriate education for students with disabilities (i.e., response to intervention decision making); and (c) supporting instruction for all learners to reduce inappropriate referrals to special education (J. Hoover & Patton, 2008; Simonsen, et al., 2010; Wasburn-Moses, 2005).

Additionally, more than any time in the past, teachers are expected to support all needs of each student (Simonsen, et al., 2010). Although this is a difficult task, teachers now have access to evidence-based practices such as those in literacy (Gersten, Fuchs, Williams, & Baker, 2001), mathematics (D. Fuchs & Fuchs, 2001), and explicit strategy instruction (Swanson, 1999). Although these evidence-based practices are available, once practices have been identified schools are faced with the challenge of implementing multiple evidenced-based practices.

Current legislation (i.e., No Child Left Behind (NCLB) and Individuals with Disabilities Education Act (IDEA)) has created a need to change the role of the special educator (J. Hoover & Patton, 2008; Simonsen, et al., 2010). Legislators, under IDEA, have recently made more federal special education dollars available for early intervention and prevention services. This has enabled schools to use some of these resources to design school-wide intervention models to promote the success of all students and minimize the likelihood that a student at risk for learning difficulties will require special education (Simonsen, et al., 2010). At the same time, under

NCLB, legislators have made schools responsible for their students' adequate yearly progress (Yell, Katsiyannas, & Shiner, 2006). Educators are being held accountable for all outcomes of all students, including students with disabilities. In light of the emphasis on generalized accountability, there are those who would argue that the role of the special educator must, once again, be redefined (Council for Exceptional Children, 2005; J. Hoover & Patton, 2008; Simonsen, et al., 2010; Wasburn-Moses, 2005).

A comprehensive literature search was conducted to identify empirical and prescriptive studies regarding the role of the special educator in an RTI framework. Beginning with ERIC, PsycINFO, and Dissertation Abstract International online databases, the following keyword search terms were used: *special education and RTI*; *role of special educator*; *tasks of special educator* and *tier three and special education*.

From this body of literature, seminal articles were identified and used for ancestral searches. Thirteen sources were found that contained either a detailed description of the role of the special educator (i.e., using a research base to describe components of the role) or a brief mention (i.e., providing a simple list of tasks with little to no explanation) of tasks conducted by the special educator. All 13 sources were analyzed, and a matrix was created that contained a list of tasks and the article(s) in which the task was found (see Table 1). The tasks were grouped in like categories. From this analysis four key roles emerged: (a) collaborator, (b) interventionist, (c) diagnostician, and (d) manager.

Collaborator. The role of the collaborator includes effectively interacting with and supporting other educators in their efforts with learners at risk and/or those with special needs in inclusive class settings. Hoover and Patton (2008) suggested that schools that are using RTI as a school reform framework have made the role of collaborator by the special educator important,

Table 1. Role Components Matrix

	Literature Sources												
Role Components	Simonsen et al., 2010	CEC 2007	CEC Webinar 2010	Cummings Atkins, Allison, & Cole, 2008	Washburn-Moses, 2005	Batsche et al. 2005	Little 2009	Kansas MTSS ICM, 2009	Mellard & Johnson, 2008	Werts, Lambert & Carpenter, 2009	Hoover & Patton, 2008	DLD 2007	Fuchs, Fuchs & Stecker, 2010
Collaborator													
Planning with General Education Teachers													
1. Planning content/lesson (what to teach)	X		X	X	●						X		X
2. Planning universal screening	X	X	X	X	●	X	X	X	X	X	X		X
3. Planning method of instruction (how to teach)	X	X	X	X	●		X		X		X		X
Consult with General Education Teachers													
1. Providing support to GE teachers /pedagogy	●	X	X	●	X	X	X	X	X		X		X
2. Providing support to GE teachers/characteristics	●	●	X	●	X	X	X	X	X	X	X		X
3. Providing support to GE teachers/SPED process	●	●	X	X	X	X	X	X	X	X	X		X
4. Providing support to GE teachers/IEP accommodations & modifications	X	●	X	X	X	X	X	X	X	X	X		X
5. Providing support to GE teachers/assessment	●	X	X	●		X	X	X	X	X			X
Teaching with General Education Teachers													
1. Co-Teaching/Team teaching		●	X	●	X		●				●		●
2. Progress monitoring	X	X	X	●	X	X	X	X	X		●		●

Note. X denotes the task is discussed using a detailed description with a research base as support

● denotes the task was only briefly mentioned, providing only a simply list of tasks with little to no explanation

Table 1. Role Components Matrix, continued

Role Components	Literature Sources												
	Simonsen et al., 2010	CEC 2007	CEC Webinar 2010	Cummings Atkins, Allison, & Cole, 2008	Washburn-Moses, 2005	Batsche et al. 2005	Little 2009	Kansas MTSS ICM, 2009	Mellard & Johnson, 2008	Werts, Lambert & Carpenter, 2009	Hoover & Patton, 2008	DLD 2007	Fuchs, Fuchs & Stecker, 2010
Collaborator, con't													
Providing Professional Development for General Education Teachers													
1. Evidenced-based instructional practices/reading	●		X	X					X		X		X
2. Evidenced-based instructional practices/ strategies	●		X	X					X		X		X
3. Evidenced-based behavioral practices	X		X						X		X		X
4. Formative assessment	●		X	X					X				X
Instructional Coaching													
1. Peer coaching	●		X						X		X		X
2. Performance feedback	●		X						X		X		X
Consulting with Student, Parent, School & Community													
1. Communicating with parents/IEP		●	X	X	●	X		X	X		X	X	
2. Consulting with students/IEP					X			X				X	
3. Assisting students with accommodations/ modifications					X			X				X	

Note. X denotes the task is discussed using a detailed description with a research base as support
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Table 1. Role Components Matrix, continued

Role Components	Literature Sources												
	Simonsen et al., 2010	CEC 2007	CEC Webinar 2010	Cummings Atkins, Allison, & Cole, 2008	Washburn-Moses, 2005	Batsche et al. 2005	Little 2009	Kansas MTSS ICM, 2009	Mellard & Johnson, 2008	Werts, Lambert & Carpenter, 2009	Hoover & Patton, 2008	DLD 2007	Fuchs, Fuchs & Stecker, 2010
Collaborator, con't													
4. Consulting with student/ behavior management					X			X				X	
5. Community collaboration/ disability issues		●		X	X			X	X		X	X	
6. Disability advocate		●						X				X	
Interventionist													
1. Knowledge of evidenced - based interventions/ instruction	X	●	X	X	X	X	X	X	X	X	●	●	X
2. Matches student need with intervention/instruction	X	●	X	X	X	X	X	X	X	X	●	●	X
3. Assisting students with goal setting				X			X					X	X
4. Developing plan for on-going progress monitoring	X	●	X	X		X	X	X	X		X	●	X
5. Implementing core instruction	X	X	X	X	X	X	X	X	X	X	X		X
6. Implementing targeted supplemental instruction	X	X	X	X	X	X	X	X	X	X	●	●	X
7. Implementing intensive instruction	X	●	X	X	X	X	X	X	X	X	●	●	X
8. Implementing behavioral supports	X	X	X		X			X	X		X		X
9. Implementing social skills instruction			X								X		
10.Implementing self-management skills instruction											X		x

Note. X denotes the task is discussed using a detailed description with a research base as support

● denotes the task was only briefly mentioned, providing only a simply list of tasks with little to no explanation

Table 1. Role Components Matrix, continued

Role Components	Literature Sources												
	Simonsen et al., 2010	CEC 2007	CEC Webinar 2010	Cummings Atkins, Allison, & Cole, 2008	Washburn-Moses, 2005	Batsche et al. 2005	Little 2009	Kansas MTSS ICM, 2009	Mellard & Johnson, 2008	Werts, Lambert & Carpenter, 2009	Hoover & Patton, 2008	DLD 2007	Fuchs, Fuchs & Stecker, 2010
Interventionist, con't													
11. Implements vocational skills instruction					X								
12. Identify student response to instructional interventions	X	●	X	X	X	X	X	X	X	●	●	●	X
Diagnostician													
1. Choosing assessment based on student need	X	X	X	X	X	X	●	X	X	X	X	X	X
2. Implementing basic skills assessment	X			X	X					●	X		X
3. Implementing functional skills assessment	X			X	X						X		X
4. Implementing SPED eligibility assessments	X	X	X	X	X	●	X	X	X	X	X	X	X
5. Identifying proper level of intervention placement with team	X	X	X	X	X	●	●	X	X	●	X	X	X
6. Identifying SPED placement with team	X	X	X	X	X	●	X	X	X	X	X	X	X
7. Identifying proper accommodations/ modifications	X	X	X	X	X	X	X	X	X	X	X	X	X
8. Explaining/discussing assessment results in RTI team meeting		●	X	X	X	●	●	X	X	X		X	X
9.Explaining/discussing assessment results in IEP meeting		●	X	X	X	●	●	X	X	X		X	X

Note. X denotes the task is discussed using a detailed description with a research base as support

● denotes the task was only briefly mentioned, providing only a simply list of tasks with little to no explanation

Table 1. Role Components Matrix, continued

Role Components	Literature Sources												
	Simonsen et al., 2010	CEC 2007	CEC Webinar 2010	Cummings Atkins, Allison, & Cole, 2008	Washburn-Moses, 2005	Batsche et al. 2005	Little 2009	Kansas MTSS ICM, 2009	Mellard & Johnson, 2008	Werts, Lambert & Carpenter, 2009	Hoover & Patton, 2008	DLD 2007	Fuchs, Fuchs & Stecker, 2010
Manager													
1. Doing paperwork					●								
2. Doing email					●								
3. Conducting meeting/ administrative duties					●								

Note. X denotes the task is discussed using a detailed description with a research base as support
● denotes the task was only briefly mentioned, providing only a simply list of tasks with little to no explanation

given the need for special educators to work within a tiered system that keeps learners who are at risk in the general education classroom to the greatest extent possible. Of the articles reviewed, all but one suggested that collaboration be included as vital aspect of the role of the special educator. At the same time, there are various views on which specific behavioral tasks constitute this particular role.

During the creation of the matrix mentioned above (see Table 1), 22 specific behavioral tasks emerged viewed as constituting the collaborator role. These tasks were divided into six subsections: (a) Planning with General Education Teachers, (b) Consulting with General Education Teachers, (c) Teaching with General Educator Teachers, (d) Providing Professional Development for General Educators, (e) Instructional Coaching, and (f) Consulting with Student, Parent, School, and Community.

Planning with General Education Teachers was the first subsection, and it included the following three tasks: (a) planning content/lesson, (b) planning universal screening/progress monitoring, and (c) planning a method of instruction. These tasks were not identified in one source and only briefly mentioned in 11 of the 13 sources; however, Washburn-Moses (2005) discussed the importance of planning with special educators and supported this view with data collected in a study that surveyed special education teachers to investigate their "daily work lives." Respondents were asked if they worked with general educators daily, 71.7% of respondents (N = 191) stated that they did work with general educators daily, which required time for planning.

The second subsection was Consulting with General Education Teachers; it contained the following five tasks: (a) providing pedagogical support to general education teachers, (b) providing support to general education teachers by sharing knowledge of characteristics of

students with disabilities, (c) providing support to general education teachers by sharing knowledge of the special education process, (d) helping general education teachers with appropriate student accommodations and modifications, and (e) providing support to general educators by sharing knowledge of assessment. These specific tasks were discussed in 12 of the 13 sources, with no elaboration in 9 of the 12 sources.

Simonsen et al. (2010), Council for Exceptional Children (2007), and Cummings et al. (2008) elaborated on these specific tasks and the importance of the special educator providing knowledge and support to the general educator in areas such as pedagogy, disability characteristics, special education process, and assessment. For example, Council for Exceptional Children in a position paper on Response to Intervention stated that special educators are the primary interveners in the advanced tiers and possess unique knowledge of disability that is an asset to general educators. Simonsen et al. expanded this idea further, stating that consultation with general educators should be a task in which special educators are engaged at each tiered level of instruction. Furthermore, they stated that special educators' knowledge should be utilized in order to support general educators in turn ensuring the successful implementation of an RTI framework. Finally, Cummings et al. noted that special educators are often seen as a resource of information on instructional strategies that are effective with students with disabilities and that providing modeling, feedback, and support to other professionals are key activities for special educators in response to intervention.

Teaching with General Educator Teachers was the third subsection. It contained the following two tasks: co-teaching/team teaching and progress monitoring. As in the previous subsections of the collaborator role, 12 of 13 sources mentioned at least one of the previously listed tasks as an important part of the role of the special educator.

The "blurring of special education" (i.e., general educators and special educators providing instruction collaboratively) was discussed in Fuchs, Fuchs, and Stecker (2010). The authors explained two views of the role of special educators in RTI (i.e., an NCLB group and an IDEA group). One of the differences between these groups and how they view special educators' roles in RTI is the integration of special and general education roles. For example, McLaughlin (2006), regarded as a member of the NCLB group by the authors, is quoted because of the importance they place on integrating the roles of general and special educators, suggesting that special educators should abandon their resource rooms and self-contained classes and take up residence in general education classrooms to co-teach with general educators, tutor small groups of students, and become members of problem-solving teams.

Cummings et al. (2008) presented a case study of one district's experience with RTI implementation and scale-up, in which they described the instructional melding of general and special education as a significant factor in their success. The goal of the program in the case study was to first focus on reading instruction and have general and special education teachers collaborate in teams to implement high-quality research-based reading instruction. General and special educators worked as a team to provide primary, secondary, and tertiary reading interventions. By utilizing special education teachers to help differentiate the core curriculum, they were able to serve their students more effectively and efficiently. The authors state that the collaboration between special and general education teachers in the district discussed in the case study resulted in a restructuring of the instructional programs and the elimination of categorical barriers between special and general educators.

Little (2009) found that educators recognize that the academic needs of students who are at risk can best be met if professionals work together as collaborative teams in designing and

delivering educational programs. The author stated further that collaboration to address student concerns can occur in multiple ways, with co-teaching listed as one of those ways (Little). In the same vein, Hoover and Patton (2008) noted that the role of the special educator should include greater emphasis on collaboration with general education to best meet a wider range of special needs in the general education setting.

Finally, the Council for Exceptional Children (2005) weighed in on this issue, recommending that collaboration between general educators and special educators be implemented, recognizing that the general educator is the primary intervener in the first tiers of instruction with the special educator being the primary intervener in the last or advanced tier of instruction.

The fourth subsection was Providing Professional Development for General Educators, which contained the following four tasks: (a) evidence-based instructional practices/reading, (b) evidence-based instructional practices/strategies, (c) evidence-based behavioral practices, and (d) formative assessment. Only 6 out of the 13 sources included any mention of these tasks. Of those six, only one provided a detailed description of the tasks.

Simonson et al. (2010) discussed special educators delivering professional development to general educators that is specific to needs contained in each tier of intervention. For example, in Tier 1, special educators would be responsible for providing professional development for general educators in systematic and explicit instruction. In Tier 2, special educators would provide professional development for elementary education teachers to assist them in implementing a Tier 2 evidence-based early literacy intervention. In Tier3, special educators would provide professional development for general educators to implement an individualized positive behavior intervention plan (Simonsen, et al., 2010).

The fifth subsection was Instructional Coaching, which contained the tasks of peer coaching and giving performance feedback. Only 4 of the 14 sources included these tasks within the collaborator role, and once again only one source mentioned these tasks with any detail.

Simonsen et al. (2010) pointed out that within the primary intervention tier or Tier 1, evidence-based practices are implemented for all students in the general education setting. Therefore, special educators may function as trainers, consultants, and collaborators with general educators to implement universal supports (i.e., academic interventions).

The final subsection, Consulting with Student, Parent, School, and Community, contained the following six tasks: (a) communicates and consults with parents about an IEP, (b) communicates and consults with students about an IEP, (c) assists students with accommodations and modifications, (d) assists students with behavior management, (e) is involved in community collaboration/disability issues, and (f) serves as disability advocate. Nine of 13 sources included one or more of these tasks when referring to the role of collaborator. Only two of the nine sources discussed these tasks at any length.

In the survey of roles of the special educator by Washburn-Moses (2005), 71.2% of respondents (N = 191) reported they worked with parents on a weekly basis, and 80.6% of respondents reported they worked with other professionals in the school and community on a weekly basis. The Council for Exceptional Children (2007) states that the RTI process, therefore the role of the special educator, is an inclusive partnership between all school personnel and families which operates in order to identify and address the academic and behavioral needs of all learners.

Interventionist. Due to the increased accountability in education, whereby students must demonstrate achievement, and teachers must use evidence-based practices to help student

obtain achievement levels, special educators must be instructional interventionists (J. Hoover & Patton, 2008). This role includes skills necessary to support and implement evidence-based, high-quality core and targeted supplemental instruction as well as intensive instruction.

After a review of the previously mentioned 13 sources, the role component of interventionist was identified, and 12 tasks related to instruction: (a) has knowledge of evidence-based interventions/instruction, (b) matches student need with intervention/instruction, (c) assists students with goal setting, (d) is involved in ongoing progress monitoring, (e) implements core content-area instruction, (f) implements targeted supplemental instruction/small group/re-teaching, (g) implements intensive instruction/strategies/basic skills, (h) implements behavioral supports, (i) implements social skills instruction; (j) implements self-management instruction; (k) implements vocational skills instruction, and (l) identifies student response to instructional intervention. All of the 13 sources analyzed regarded the interventionist component as an important part of the special educators' role. Three of the 13 sources detailed one or more of these instructional tasks.

Fuch, Fuchs, and Stecker (2010) focused on the unique role of the special educator as an interventionist in a RTI framework, arguing that it is the experimental teaching approach (Deno, 1985; Deno & Fuchs, 1987; D. Fuchs, 2010; Marston, 1988) that gave special education a "core identity" and in turn, that particular form of providing instruction is a perspective and set of practices that mark special educators and their field as "special."

Experimental teaching requires a trained clinician-researcher to work individually with children or in small groups to determine effective instruction by both applying various teaching strategies and continually measuring the student's academic response (D. Fuchs, 2010). Fuchs et al. (2010) continued the justification of experimental teaching by summarizing research that

highlights the effectiveness of this approach (D. Fuchs & Fuchs, 1994; Marston, 1988). Furthermore, the authors call for fundamental change in the mission and practice of special educators, recommending that special educators rediscover their historic roots, which is essentially to work with the most difficult-to-teach students using an experimental teaching approach (D. Fuchs, 2010). Furthermore, they suggest that special educators must be willing to connect the historic roots of experimental teaching with the contemporary evidence-based practices that are key to successful implementation of RTI.

Diagnostician. The diagnostician category consisted of nine tasks, all related to assessment: (a) implementing basic skills assessment, (b) implementing functional skills assessment, (c) implementing special education eligibility assessments, (d) interpreting assessment results to identify proper level of intervention placement with or without a team, (e) interpreting assessment results to special education placement with or without a team, (f) interpreting assessment results to identify proper accommodations/modifications with or without a team, (g) explaining and discussing assessment results in RTI team meeting, (h) explaining and discussing assessment results in an IEP meeting, and (i) learning how to implement assessment.

As with the interventionist category, all of the sources discussed assessment-related tasks as important to the role of the special educator within an RTI framework. The role component of diagnostician includes skills necessary to develop and implement ongoing data-based monitoring of students' academic performance. Although assessment has always been a key responsibility of the special educator, the nature of assessment and the use of results have changed significantly with the adoption of the RTI framework as a school reform model (J. Hoover & Patton, 2008) and, therefore, responsibilities related to assessment will differ for special educators who are working in an RTI model as opposed to those who are not working within an RTI model .

Wertz and colleagues (2009) conducted an e-mail survey of special education directors to ascertain practices related to RTI implementation in the state of North Carolina. Nearly 93% of respondents ($N = 117$) stated that special education teachers should determine a student's responsiveness to intervention based upon data, both progress monitoring and universal screening measures. Eighty percent of the respondents in the survey also noted that special educators should be the primary persons conducting assessments and recording the data.

Cummings et al. (2008) listed four key activities for special educators in RTI, all linked to assessment: (a) identify a need for support using universal screening measures; (b) plan and implement support using evidence-based practices, (c) evaluate and modify support using progress-monitoring measures, and (d) use formative and summative assessment to evaluate outcomes.

Manager. Finally, the manager category consisted of three administrative-related tasks: (a) completing paperwork, (b) answering/sending emails, and (c) attending meetings. Washburn-Moses (2005) recognized that paperwork is an important responsibility carried out by the special educator that involves neither teaching, working with students, or working with others. A majority of the respondents (80.1%) to the author's survey of roles and responsibilities of the special educator reported that they completed paperwork daily. Surprisingly, this study is the only one of the 13 sources that mentioned managerial tasks such as those listed above.

Instructional Practices at the Advanced Tiers

This section of the literature review will address effective instructional practices provided by special educators that may be found in the advanced tiers (i.e., Tier 2 and Tier 3) of an RTI model. The discussion is divided into three subsections. The first is a review of the literature on tiers of instruction in an RTI model. The second subsection presents a summary of three meta-

analysis of effective instructional practices conducted since 1999 related to students with disabilities (Berkeley, Scruggs, & Mastropieri, 2010; Gersten, et al., 2001; Swanson, 1999)**.** The third subsection consists of a summary of a review of the instructional practices literature related to students with disabilities being taught in the general education classroom (Cornett, 2010).

Tiers of Instruction

RTI provides a framework for delivering comprehensive, high-quality instruction for all learners (Cortiella, 2005; Jimerson, et al., 2007; D. F. Mellard & Johnson, 2008; Vaughn & Fuchs, 2003) . The framework consists of three tiers that are fluid and overlapping and provide various levels of support to students in terms of duration and intensiveness.

Teachers using RTI utilize evidence-based instructional practices, targeted interventions, and curricular enhancements to support students in reaching their individual learning goals. Every student is given an opportunity to meet or exceed proficiency standards by teachers utilizing data in a collaborative decision-making process, which is supposed to result in differentiated instructional practices for all learners (Johnson, et al., 2006; D. F. Mellard & Johnson, 2008; Murawski & Hughes, 2009b).

Tier 1. Tier 1 instruction refers to evidence-based core classroom curriculum and instruction for all learners that focus on the essential elements of a content area (i.e., English, math, social studies, and science). The focus of this study, and in turn this review, is on the advanced tiers of instruction (i.e., Tier 2 and Tier 3). Therefore, this review will only briefly discuss Tier 1 in order to set a context for Tiers 2 and 3.

Tier 1 provides the foundation for instruction upon which all interventions are formulated (Jimerson, et al., 2007; Johnson, et al., 2006; Kansas State Department of Education, 2010; National Center on Response to Intervention, 2010). Two key characteristics of quality Tier 1

intervention is differentiated instruction (i.e., providing groups of students within the classroom instruction that is purposefully planned to meet their needs) and explicit instruction (i.e., providing instruction that is clear and purposeful, demonstrates and models, provides guided practice, checks for understanding, provides feedback, and monitors student progress) (Vaughn, et al., 2010). Progress monitoring data are collected during Tier 1 instruction and are used to identify students who need advanced instruction (National Center on Response to Intervention, 2010; Stecker, Fuchs, & Fuchs, 2008). Students who are struggling with instruction in Tier 1 are considered in need of additional support (J. J. Hoover, et al., 2008; Kansas State Department of Education, 2010; National Center on Response to Intervention, 2010).

Tier 2. Tier 2 instruction provides strategic, targeted extensions in addition to the core curriculum and instruction present at Tier 1 (D. Fuchs, et al., 2008; L. S. Fuchs, et al., 2010). Data from progress monitoring are used to guide the intensity, duration, and frequency of instruction that vary based on individual learning goals. For students performing below grade level, Tier 2 is intended to remediate deficiencies and provide the support needed to be successful in Tier 1.

Tier 2 services are often pull-out instructional services that are delivered to small groups of students on a frequent basis, such as every day or several days per week (D. Fuchs, et al., 2003; Stecker, et al., 2008; The National Association of State Directors of Special Education (NASDSE), 2006). Both standard treatment and problem-solving approaches have been used as methods for providing supplemental instruction.

Stecker et al. (2008) noted that progress-monitoring data are critical for evaluating whether students respond sufficiently during Tier 2 support; furthermore, the author recommends that data be collected weekly and that the data be reviewed to determine responsiveness to

instruction and slope of improvement.

In a study conducted by Vaughn and colleagues (2003), a three-tier response to intervention approach was used to help kindergarten through third-grade students in the area of literacy. Vaughn described Tier 2 in this study as being supplemental to the core reading program with instructional sessions lasting about 30 minutes daily and progress being monitored twice a month (Vaughn, Linan-Thompson, & Hickman, 2003). Students who received Tier 2 instruction were those who were determined to not have responded to Tier 1 instruction based on their score on early literacy benchmarks. In this study, Tier 2 intervention instruction was provided by general education, special education or project staff.

In a more recent study, by Vaughn et al. (2010) examined the effectiveness of a yearlong researcher-provided Tier 2 reading intervention. Students were provided Tier 1 instruction plus Tier 2 instruction, which consisted of three phases: (a) phase 1, 7-8 weeks of reading skill (fluency) intensive instruction; (b) phase 2, 17-18 weeks of more reading (i.e., vocabulary and comprehension) skill instruction and additional instruction and practice with skills taught in phase 1; and (c) phase 3, 8-10 weeks of maintenance instruction (i.e., skills were generalized to novel units). Tier 2 instruction was provided to groups of 10-15 students for approximately 50 minutes per school day.

Findings from this study showed that students who received the Tier 1 plus Tier 2 instruction made slightly higher gains on measures of reading comprehension than the students who received Tier 1 instruction alone (Vaughn, et al., 2010). The researchers noted that one area of further study to help explain the minimal gains would be to investigate the intensity of instruction that may be needed to see more substantial gains.

Fuchs and colleagues (2008) summarized the findings of the first-grade longitudinal

reading study of the National Research Center on Learning Disabilities. This study was designed to answer the following questions about Tier 2 of an RTI model: (a) Who should participate in it? (b) What instruction should be conducted? (c) How should responsiveness and non-responsiveness be defined?

As for ‘‘what instruction should be conducted,” Fuchs et al. (2008) found that students who received supplemental instruction in a tutoring program outperformed controls on both a progress-monitoring measure and several standardized reading tests. The students receiving the Tier 2 instruction were both initially low performing and non-responsive to Tier 1 instruction. Additionally, the authors stated that these findings may be seen as supporting the use of a standard treatment protocol during secondary intervention.

Questions regarding Tier 2 still remain. Who provides instruction in Tier 2? What elements of instruction should Tier 2 interventions provide? How intensive should Tier 2 interventions be? What is the duration of time a student should spend in Tier 2 intervention? For the purpose of this study and because this study focuses on instruction in the advanced tiers, these questions are vitally important.

Tier 3. Tier 3 goes beyond the differentiated instruction typical within Tiers 1 and 2 to provide intense intervention that targets specific, individual student needs (Graner, et al., 2005; Kansas State Department of Education, 2010; National Center on Response to Intervention, 2010). For students with the most significant needs, this requires explicit, intensive, and specifically designed lessons in addition to Tier 1 and in place of Tier 2 instruction (D. Fuchs, et al., 2008). This intensive level of instruction utilizes a combination of research and evidence-based practices, a rigorous curriculum, and frequent assessments to ensure the needs of all students are met.

Fuchs et al. (2008) equate Tier 3 instruction with special education and call it the most "intensive" tier. Fuchs and colleagues elaborate on the process of students moving from Tier 2 to Tier 3. Students who do not respond to classroom instruction (Tier 1) get something else or something more from the teacher, reading coach, or some other professional (Tier 2). Progress is monitored, and if students do not respond, they either qualify for special education because of unresponsiveness or are provided a comprehensive evaluation to determine special education eligibility (D. Fuchs, et al., 2008).

The authors go on to explain that during Tier 3, special educators should employ the "evidence-based technology" of assessment and instruction. This special education instructional technology depends on student progress monitoring, and is a test-teach-test approach that is data-based and recursive. Furthermore, it requires special educators to be experimenters, who try instruction, measure student progress and, if the instruction is not working, try something different until they find what does work. Instruction in Tier 3, under this approach, would be assessment-driven, implemented by the most expert instructors, who are also the professionals who typically work with the most difficult to teach students (D. Fuchs, et al., 2008).

According to Murawski and Hughes (2009), it is the power of collaboration that sets RTI apart from any other model of integrated service delivery. Therefore, Tier 3 should incorporate general and special education collaboration (Hauerwas & Woolman, 2005, October; Murawski & Hughes, 2009a). Like Fuchs et al. (2008), Murawski and Hughes (2009) also describe the process of students moving along the continuum of tiers of intervention and characterize placement in Tier 3 as when a child is identified as needing supportive services for a longer period of time or needing more intensive services than general education can provide.

During this referral and identification process, the power of collaboration is evident.

Specifically, in Tier 3, collaborative teachers can more fully provide or suggest individualized services for students with whom they are familiar. Working together, general education and special education can provide the necessary individualized services (Kansas State Department of Education, 2010; Murawski & Hughes, 2009b; Turnbull, Turnbull, Erwin, & Soodak, 2006; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000).

L. Fuchs and Fuchs (2007) suggested that for Tier 3 to have the required effect, special education would need to be reformed. The current emphasis on paperwork and compliance, in addition to the large class sizes (often similar to—or even greater than—general education classes), makes the special education system less likely to be able to create the level of instructional intervention needed to positively influence student outcomes for students who are moved to Tier 3 (L. S. Fuchs & Fuchs, 2007). Murawski and Hughes (2009) claimed that if the collaboration between special and general educators is truly highlighted and valued in a school, more students would receive their instruction in general education inclusive classes, rather than having so many special education classes that promise small class sizes and individualized, differentiated instruction that cannot be delivered. When Tier 3 is genuinely warranted, those groups can remain small, and individualized instruction can be individualized, the authors argued.

Furthermore, professional development in Tier 3 should focus on providing teachers, both in special and general education, with training in specific instructional techniques (i.e., Kansas Writing Strategies, TouchMath, or any other strategy designed to help struggling diverse learners achieve at their individual levels) (L. S. Fuchs & Fuchs, 2007). Clearly, there are differences in opinion of what constitutes instruction and service delivery at Tier 2 and Tier 3. Some have attempted to compare these tiers in hopes of clarifying their substance and pointing out differences among the tiers. (Stecker, et al., 2008; Vaughn & Roberts, 2007) clarified the

difference between Tiers 2 and 3:

Stecker and colleagues state, "The third tier of instruction is considered to be the most intensive and is focused on individual student need. Instructional sessions may be lengthier than what is typically provided in Tier II, instruction may be delivered one on one or to very small groups of students (e.g., 1–3 students), and the intervention program may be implemented across a longer period of time. Because students who are considered candidates for Tier III already have demonstrated poor performance and academic unresponsiveness to high-quality instruction as indicated by poor patterns of growth in both general education classrooms and during more focused supplemental instruction, Tier III intervention is developed to address specific individual needs." (p. 51)

The differences between Tier 2 and Tier 3 were also addressed by Vaughn and Roberts (2007), who summarized one way of conceptualizing tiered levels of reading interventions within a three-tiered model. They used the figure below (Figure 1) to help provide guidelines for how a school or district might address the following critical questions related to the delivery of tier instruction: (a) who provides the intervention, (b) what elements of instruction the intervention addresses, (c) time the intervention will be delivered, (d) what determines adequate response to intervention.

The following questions about Tiers 2 and 3 have been addressed in the literature: (a) who provides the intervention; (b) where will the instruction be provided; (c) what students should receive the instruction and (d) what characterizes responsiveness. One question still lingers, what exactly are those effective instructional practices that should be used in each tier of intervention and should some instructional practices be used more in some tiers than in others?

	Tier 1	Tier 2	Tier 3
Definition	Reading instruction and programs, including ongoing professional development and benchmark assessments (3 times per year)	Instructional intervention employed to supplement, enhance, and support Tier 1; takes place in small groups	Individualized reading instruction extended beyond the time allocated for Tier 1; groups of 1-3 students
Focus	All students	Students identified with reading difficulties who have not responded to Tier 1 efforts	Students with marked difficulties in reading or reading disabilities who have not responded adequately to Tier 1 and Tier 2 efforts
Program	Scientifically based reading instruction and curriculum emphasizing the critical elements	Specialized scientifically based reading instruction and curriculum emphasizing the critical elements	Sustained, intensive scientifically based reading instruction and curriculum highly responsive to students needs
Instruction	Sufficient opportunities to practice throughout the school day	● additional attention, focus, support ● additional opportunities embedded to practice throughout the day ● preteach, review skills frequent opportunities to practice skills	Carefully designed and implemented, explicit systematic instruction
Interventionist	General education teacher	Personnel determined by the school (e.g. classroom teacher, specialized teacher, other trained professional)	Personnel determined by the school (e.g. specialized reading teacher, special education teacher)
Setting	General education classroom	Appropriate setting designated by the school	Appropriate setting designated by the school
Grouping	Flexible grouping	Homogeneous small-group instruction (i.e. 1:4, 1:5)	Homogeneous small group instruction (i.e. 1:2, 1:3)
Time	Minimum of 90 minutes per day	20-30 minutes per day in addition to Tier 1	50 minute sessions (or longer) per day depending upon appropriateness of Tier 1
Assessment	Benchmark assessments at beginning, middle and end of school year	Progress monitoring twice a month on target skill to ensure adequate progress and learning	Progress monitoring at least twice a month on target skill to ensure adequate progress and learning

Adapted from Vaughn and Roberts (2007).

Figure 1. Overview of Tiers 1, 2, and 3.

Instructional Practices: Meta-Analysis

A seminal work on instructional components found to be effective with students with disabilities is a meta-analysis conducted by Swanson (1999). This work continues to serve as a touchstone for work currently being done on effective instructional practices for students with

disabilities. For this reason, a synopsis of the study will be presented to provide a backdrop for better understanding the findings of the two meta-analyses of content specific (i.e., reading and math) instructional practices that are effective for students with disabilities.

Swanson (1999) identified the instructional components across 180 intervention studies that best predicted effect sizes for students with LD. Swanson first identified 45 instructional activities that were coded as present or not present in the 180 studies, based on comprehensive reviews that identified instructional components that influenced student outcomes (Adams, 1990; Becker & Carnine, 1980; Brophy & Good, 1986; Leinhardt & Greeno, 1986; Pressley & Harris, 1994; Rosenshine, 1995). These 45 instructional activities were then reconfigured into 20 clusters. Specifically, Swanson coded the occurrence of the following instructional components:

1. Sequencing
2. Drill-repetition & practice-review
3. Anticipatory or preparation responses
4. Structured verbal teacher-student interaction
5. Individualized + small group
6. Novelty
7. Strategy modeling + attribution training
8. Probing-reinforcement
9. Non-teacher instruction
10. Segmentation
11. Advanced organizers
12. Directed response/questioning
13. One-to-one instruction
14. Control difficulty or processing demands of the task
15. Technology
16. Elaboration
17. Modeling of steps by teacher
18. Group Instruction
19. Supplement to teacher involvement besides peers
20. Strategy cues

Analysis was conducted to determine which of the 20 components, either in isolation or in combination with other components such as implementing them within direct instruction (DI)

or strategy instruction (SI) models, best predicted effect sizes. Table 2 is an adaptation from Swanson (1999) and shows the 20 instructional components listed above and the corresponding effect sizes when implement with DI, SI, a combination of the two models, or implementing the instructional component alone and not within a model.

Swanson (1999) concluded that only the following nine instructional components increased the predictive power of treatment effectiveness when implemented alone and not within a DI or SI model:

1. *Sequencing* (.65): Breaking down the task, fading of prompts or cues, sequencing short activities, step-by-step prompts
2. *Drill-repetition & practice-review* (.68): Daily testing of skills (e.g., repeated practice, review and practice, and/or weekly review)
3. *Segmentation* (.55): Breaking down targeted skill into smaller units and then synthesizing the parts into a whole
4. *Directed questioning and responses* (.45): The teacher verbally asking process-related and/or content-related questions of students
5. *Control difficulty of processing demands of a task* (.66): Task sequenced from easy to difficult, and only necessary hints and probes are provided
6. *Technology* (.53): For example, use of a computer, structured texts, structured curriculum with emphasis on pictorial representation, use of media to facilitate presentation and feedback
7. *Group instruction* (.65): Instruction occurring in a small group. Students and/or teacher interact(s) within the group

Table 2

Instructional Practices Effect Sizes

	DI Alone	SI Alone	Combined	Non-DI & Non-SI
1. Sequencing (e.g., process or task analysis to goal, shaping	.72	.76	.89	.65
2. Drill-repetition-feedback-practice	.66	.83	.96	.68
3. Orienting to process or task (e.g., preparatory to task)	.93	.81	.83	1.20
4. Question/answer sequence (e.g., structured verbal interaction)	.57	.74	.72	.45
5. Individual + group instruction	.69	.80	.86	.63
6. Novelty (pictorial presentation, flowchart, related visual presentation, mapping)	.78	.69	.91	.60
7. Attributes/benefits to instruction (e.g., this approach works when …, this will help you …)	.69	1.19	.87	.30
8. Systematic probing (CBM, daily testing)	.65	1.23	.67	.69
9. Peer modeling/mediation (e.g., peer tutoring)	.90	.59	.49	.74
10. Segmentation (e.g., sounds divided into units the synthesized)	.68	.62	.85	.55
11. Advanced organizer	.92	.81	.83	1.20
12. Directed response/questioning (child directed to summarize, asked what's the thing to do when …)	.51	.64	.62	.45
13. One-to-one instruction	.68	.69	.86	.49
14. Control task difficulty (adapting material to reading level)	.80	.73	1.07	.66
15. Technology (computer mediated, highly structured materials)	.77	.61	.88	.53
16. Elaboration (additional information, examples, rely on context)	1.09	1.09	1.03	-
17. Teacher models directly (models problem solving, steps, correct sounds)	.52	.76	.89	.44
18. Small interactive groups (reciprocal, directive, therapy groups)	.80	.79	.93	.65
19. Mediators other than peer or teacher (homework, parents)	1.06	-	-	2.03
20. Strategy cuing (reminders to use strategy or tactics)	-	.69	.74	-

Adapted from Swanson (1999).

8. *A supplement to teacher and peer involvement* (2.03): May include homework, parent or others assist instruction
9. *Strategy cues* (.74): Reminders to use strategies or multi-steps; the teacher verbalizes problem solving or procedures to solve, instruction makes use of think-aloud models. Teacher presents benefits of strategy use or procedures

Finally, Swanson (1999) concluded that the only instructional component that contributed significant variance to effect size was the Control of task difficulty component. Swanson explains that this component approximates with what has been called scaffolding in the instructional literature. When teachers incorporate scaffolding, they provide individual, tailored feedback and model the appropriate response based on the feedback (Palincsar & Brown, 1984; Rosenshine, 1995). The fact that only one component contributed independent variance to effect sizes suggests that instructional components seldom act independently of other processes (Swanson, 1999).

Where Swanson (1999) included a variety of instructional domains (i.e., reading, writing, math) in his meta-analysis, Berkeley, Scruggs and Mastropieri (2010) conducted a meta-analysis on reading comprehension instruction. Berkeley et al. synthesized findings of research for improving reading comprehension of students with LD. Studies were included in their meta-analysis if (a) participants in the study were between kindergarten and grade 12, (b) the study was primarily designed to improve reading comprehension, and (c) data were disaggregated for students with disabilities (Berkeley et al.).

Forty studies were included, 15 included elementary age students, 18 included middle school students, 6 included high school students and 1 included students from a residential

facility. Interventions on reading comprehension were classified into the following categories: questioning/strategy instruction (i.e., the primary purpose was to teach strategies or involved direct questioning of students), text structure (i.e., primary purpose was to supplement or enhance the text to increase comprehension), fundamental reading skills (i.e., focused on training basic reading skills such as phonemic awareness), and other (i.e., could not be grouped into any of the other categories).

Of the 40 studies, 27 were categorized as questioning/strategy instruction, 6 were categorized as text enhancements, 5 were categorized as fundamental reading skills, and 2 were categorized as other. Berkeley et al. (2010) explained further the types of instructional practices employed by teachers in each of the above categories. In the questioning/strategy category, instructional practices included teacher direct questioning of students, strategy instruction, and implementation of peer-assisted strategies. In the text enhancements category, instructional practices included implementing instruction with graphic organizers, implementing instruction with technology components, and teacher feedback. Finally, in the fundamental reading skill category, instructional practices included a large variety because packaged intervention programs were utilized.

Results from this meta-analysis showed that the questioning/strategy instruction (.62) and text enhancements (.75) categories had moderate to large effect sizes, and the fundamental reading skills category (1.04) had a large effect size. However, the other (.07) category had only a small effect. The authors suggest that a variety of interventions are effective in improving reading comprehension in students with LD, including cognitive strategies, text enhancements, and questioning.

In another meta-analysis, Gersten and colleagues (2008) synthesized experimental and

quasi-experimental research on instruction that enhances the mathematics performance of students in grades 1-12 with LD. The authors defined mathematical interventions as instructional practices and activities that attempt to enhance the mathematics achievement of students with LD.

The following three criteria were used to determine whether to include a study in the meta-analysis: (a) purpose of the study; the study had to focus on an evaluation of the effectiveness of a well-defined method (or methods) for improving mathematics proficiency; (b) design of the study; the search was limited to studies that could lead to strong claims of causal inference; that is, randomized controlled trials or quasi-experimental designs; therefore no single-subject or multiple-baseline studies were included; (c) participants in the study were students with identified LD.

Forty four studies were included in the analysis and three phases of coding took place. In Phase I coding, two of the authors examined the design of each study to ensure that it was methodologically acceptable. In Phase II, all studies were coded on the following variables: (a) mathematical domain, (b) sample size, (c) grade level, (d) length of the intervention, and (e) dependent measures. During this phase the authors also determined who implemented the intervention (i.e., classroom teacher, other school personnel, or researchers). In Phase III, the primary purpose was to determine a set of research issues that could be explored in this set of studies.

After these phases of coding, the studies were divided into four major categories: (a) approaches to instruction and/or curriculum design, (b) providing ongoing formative assessment data and feedback to teachers on students' mathematics performance, (c) providing data and feedback to students with LD on their mathematics performance, and (d) peer-assisted

mathematics instruction. These four broad categories were broken down further into specific subcategories. The following is a list of the subcategories with corresponding effect sizes: (a) Explicit instruction (i.e., incorporates step-by-step, problem-specific instruction): mean effect size 1.22; (b) Student verbalization of their mathematical reasoning (i.e., student verbalizations of the solutions to math problems): mean effect size 1.04; (c) Visual representations (i.e., visually representing math problems (e.g., graphics, diagrams): mean effect size 0.54; (d) Range and sequence of examples (i.e., well-designed lessons with carefully selected examples that cover a range of possibilities or are presented in a particular sequence): mean effect size 0.82; (e) Multiple and heuristic strategies (i.e., a generic problem-solving guide in which the strategy--list of steps--is not problem-specific): mean effect size 1.56; (f) Ongoing formative assessment data and feedback on students' mathematics performance (i.e., providing teachers with information about students' math performance, teachers receiving instructional tips and suggestions that helped them decide what to teach, when to introduce the next skill, and how to group/pair students, as informed by performance data): mean effect size 0.51; (g) providing data and feedback to LD students on their mathematics performance (i.e., providing feedback to students with disabilities about their math performance): mean effect size 0.53; and (h) peer-assisted instruction (i.e., cross-age peer tutoring): mean effect size 0.75. Findings from this meta-analysis support the use of explicit instruction, graphic organizers, and explicit modeling as effective instructional practices for students with disabilities.

Instructional Practices: Cornett Literature Review

Cornett (2010) reviewed the literature on the impact teachers have on student success by closely coordinating instructional activities and management strategies. He focused on four separate, yet interrelated categories of instruction and management: student engagement,

transition time, learning arrangement of students, and instructional activity. Given its relation to this study, instructional activity will be the focus of discussion. Cornett reviewed the literature on the following nine instructional practices:

1. Assessing student knowledge
2. Review
3. Lecture
4. Describe
5. Give directions
6. Modeling
7. Monitoring
8. Feedback
9. Graphic organizers

Cornett (2010) begins his review by highlighting the work of Rosenshine and Stevens (1986), who conducted a meta-analysis on effective teaching practice to create a list of instructional functions. Assessing student knowledge is an instructional practice associated with these functions. Cornett goes on to state that assessing student knowledge and checking for understanding is an important instructional activity to monitor mastery of new skills and identify struggling students. Two types of assessments are described: formative and summative. Formative assessments are intended to inform future instruction by rapidly identifying current level of mastery and skills that are lacking. Summative assessments, in turn, include teats and quizzes intended to measure knowledge and assign credit based on that measurement.

The next instructional practice reviewed by Cornett (2010) is review, which he states should be guided by results from formal assessments. Reviewing can focus on fact or concept recall, ability to manipulate or generalize previous learning to novel situations, or processes for learning that include broad skills or strategies. Furthermore, he states research indicating that reviewing the key information from a lesson is associated with increased student achievement (Armento, 1977; Wright & Nuthall, 1970).

The next four instructional practices reviewed by Cornett (2010), lecturing, describing, giving directions, and modeling, are used when initially presenting new information. He characterizes these activities as all being led by the teacher and as typically being characterized by the teacher talking to the class. However, according to Cornett, modeling is more than the teacher simply talking to the class. Modeling can be explicit or implicit. As an instructional activity, explicit modeling has two components: physical demonstration of the steps or procedure and verbalizing the meta-cognitive thought process used to guide actions. Implicit modeling is teacher demonstration of the steps or procedures without verbalizing the meta-cognitive process.

Another instructional practice reviewed by Cornett (2010) is monitoring. According to Cornett, monitoring is an instructional practice associated with Rosenshine and Stevens' (1986) instructional functions. Teachers monitor students using a variety of instructional activities, including multiple types of questioning, physically observing, and listening to students' academic talk. Effective teachers use these monitoring activities to assess student understanding of new content, provide correction or feedback, reteach, and adjust future instruction (Hughes & Archer, 2010; Rosenshine & Stevens, 1986). He states that research has shown that when teachers circulate around the room physically observing students, student engagement increases, academic achievement may increase, the pace of the lesson is maintained, and a clear message is sent to students that the teacher is available to help (Brophy & Good, 1986; Doyle, 1984; Evertson & Emmer, 1982; C. W. Fisher et al., 1978).

According to Cornett (2010), giving feedback is also an instructional practice associated with Rosenshine and Stevens' (1986) instructional functions. However, Cornett cites the work of Hattie (1999, June) and Hattie and Timperly (2007) to support the claim that teacher feedback is an effective instructional practice. Hattie (1999) conducted a meta-analysis of more than

180,000 studies, encompassing 450,000 effect sizes, on the effects of instruction on student achievement and found that "the most powerful single moderator that enhances achievement is feedback" (p. 9). According to Hattie, feedback is providing information about how and why a student understands and the next steps a student should take to continue toward mastery.

Hattie and Timperley (2007) examined types of teacher feedback and found them to be powerful moderators of student achievement, but not all types were equally powerful. Notably, reinforcing student success, giving corrective feedback, and remediating feedback were shown to positively impact student achievement with average effect sizes of 1.13, 0.94, and 0.65, respectively (Hattie, 1999).

Cornett (2010) ends his review noting that missing from the list of six instructional functions synthesized by Rosenshine and Stevens (1986) is graphic organizers. Cornett describes graphic organizers as visual representations of ideas or concepts intended to show relationships and demonstrate the organization of concepts (e.g., hierarchical lists, flowcharts, outlines, concept maps). He further states that graphic organizers are used for many purposes, including as reading enhancement (DiCecco & Gleason, 2002; Dunston, 1992; Griffin & Tulbert, 1995; Robinson, 1998; Velkiri, 2002), a mathematical problem-solving tool (Ives & Hoy, 2003), note-taking strategy (Katayama & Crooks, 2003; Katayama & Robinson, 2000), and an accommodation for students with disabilities (Boudah, Lenz, Bulgren, Schumaker, & Deshler, 2000; DiCecco & Gleason, 2002; Horton, Lovitt, & Bergerund, 1990; Kim, Vaughn, Wanzek, & Wei, 2004). He also states that evidence suggests that graphic organizers aid in comprehension by providing students a method to organize new information and understand the interconnections between newly learned and recently learned knowledge (Robinson & Kiewra, 1995). Furthermore, when an organizer is provided at the beginning of the lesson, it can help students

with disabilities retain more of the information presented (Lenz, Alley, & Schumaker, 1987).

In summary, based on the literature reviewed here, which constitutes over 300 intervention studies examining special educators' instructional practices with students with disabilities, the following practices were found to be effective with effect sizes ranging from .44-1.57: (a) explicit instruction/describe skill or strategy; (b) giving directions (i.e., preparing for task); (c) review skill/strategy; (d) teacher feedback; (e) teacher modeling; (f) teacher listening to student questionings or verbalizations; (g) teacher questioning; (h) fact/concept review; (i) skill/strategy review; (j) graphic devices; (k) ongoing assessment; (l) use of technology; and (m) exposure to reading (e.g., read aloud, silent reading). Finally, the following instructional practices were found to be the least effective (effect sizes than .44): (a) physical observation; (b) lecture and (c) teacher not engaged in instruction.

Research Questions

The purpose of this study was to examine the role of the special educator within a response to intervention (RTI) framework and what instructional behaviors special educators evidence most frequently in the advanced RTI tiers. These two issues were investigated with the goal of answering the following four research questions:

1. What proportion of the special educator's time is spent in the four key roles defined by the literature (i.e., collaborator, interventionist, diagnostician, manager)?
2. Within each key role, what behaviors do special educators evidence most frequently?
3. During instructional tasks, what are the instructional practices that are used most frequently by the special educator?
4. Are the instructional practices used by special educators aligned with effective instructional practices that have been identified in the empirical literature?

CHAPTER III

METHODS

The general purpose of this study was to examine the role of the special educator in an RTI framework. Specifically, the study was designed to first examine the overall role of the special educator and then to look specifically at the instructional practices that are used by special educators and in particular how those instructional practices differ in advanced tiers of instruction in an RTI model. This study was conducted in three phases, pre-observation, observation, and post-observation. Each phase and the measurement instruments used will be discussed in this chapter. First, a short synopsis of each phase will be given.

During the pre-observation phase, the researcher contacted the Kansas State Department of Education (KSDE) to ask for a nomination list of schools to be included in this study. In nominating schools, KSDE personnel were asked to consider the following criteria: (a) schools must be currently implementing RTI, (b) both schools that were experienced in implementation (i.e., minimum of three years of implementation) and schools in the beginning of implementation should be included.

From the schools on the nomination list, the researcher contacted district offices to obtain permission to contact school principals and special educators. The researcher then used three sources of information, Initial Contact/Determination Instrument, Principal Pre-Observation Protocol, and Teacher Pre-Observation Protocol, to determine which schools and teachers from the nomination list would be included in the study. Once schools and teachers were chosen, dates for formal observations were scheduled.

During the observation phase, each teacher was observed for three consecutive, full school days (i.e., five minutes before the first bell of the day until five minutes after the last bell

of the day). During each observation day, the researcher focused on two aspects of the role of special educators with in an RTI framework: what tasks their role consisted of and what instructional practices they used throughout their day. Two measurement instruments were used during the observation phase, the Role Observation Instrument and Instruction Observation Instrument.

During the post-observation phase, the researcher conducted interviews with each participating teacher using the Teacher Post-Observation Protocol. The researcher also contacted teacher participants via phone to ask follow up questions as necessary.

Setting

The teacher participants in this study all taught in the state of Kansas. The researcher selected Kansas because of the state's long-standing commitment to RTI implementation. Indeed, Kansas' Multi-Tiered Systems of Support (MTSS) was one of the first state-wide RTI initiatives, and it continues to operate across the state (Kansas State Department of Education, 2010). The meaning and practices referred to as RTI vary from a narrow viewpoint such as the identification of students with specific learning disabilities under IDEA (Donovan & Cross, 2002), to a broad view point as an educational change paradigm or an inclusive school reform model (Shores & Chester, 2008). Since all models labeled RTI do not always embody the same purpose or practices, Kansas has intentionally chosen to call its model the Multi-Tiered Systems of Support (MTSS). The MTSS approach provides a framework to create a single system that offers a continuum of multiple supports for all students. This approach aligns the Kansas MTSS framework with the broad educational reform movement of RTI (Kansas State Department of Education, 2010).

The focus of most RTI models is on instruction and intervention and is typically

represented by leveled tiers of instruction (Cortiella, 2005; Mellard & Johnson, 2008). MTSS, much like most RTI models, begins in general education by establishing a strong content core knowledge base for all students that provides the foundation of prevention within the entire system. MTSS includes PreK-12 literacy, mathematics, and behavior as a continuum of instruction where tiers of instruction are prescribed according to the needed intensity of instruction.

The tiers within MTSS and RTI models describe instruction, not steps in a process; students do not leave Tier 1 to receive instruction in Tier 2 or Tier 3, nor must a student receive Tier 2 instruction prior to receiving Tier 3 instruction. The intensity of instruction is supposed to be determined by student data and be based on student need. Tier 3 is not necessarily special education, nor does student success or failure alone at Tier 3 determine eligibility for special education. MTSS is the state of Kansas' framework, which encompasses the broader nationally known RTI framework (Kansas State Department of Education, 2010).

The researcher selected schools nominated by the Kansas State Department of Education (KSDE) as being exemplary in their implementation of MTSS. The Director of Special Education Services at the Kansas State Department of Education was contacted by the researcher and was asked to provide a list of schools in the state which were implementing MTSS; both schools in the first years of implementation and schools experienced at MTSS implementation were included on the nomination list. In order to eliminate any confounding variables (i.e., scheduling, class size), the researcher also asked that the schools nominated all be elementary schools.

Table 3 describes each school setting in terms of enrollment, socio-economic status, and special education population. Each school met all standards for Adequate Yearly Progress (AYP) for the most recent three consecutive school years.

Table 3

School Descriptors

School	Grade Levels	Total Enrollment	% of SPED Students	% of Free and Reduced-Price Lunch
1	PK-5	514	12.34	35.6
2	K-6	359	10.58	11.14
3	K-5	385	16.62	56.62
4	K-6	274	9.49	23.72
5	PK-6	359	7.52	45.4
6	K-6	533	8.26	79.92
7	K-6	366	4.37	4.64

Participants

The participants were seven special education teachers who taught in the schools nominated by the KSDE. The researcher selected the teacher participants from the nominated schools based upon the following criteria: (a) the teacher provided instruction in both the general education and resource setting during the typical school day; (b) the teacher and principal confirmed MTSS implementation at their school as evidenced by school-wide screening for academic and behavior concerns, tiered academic and behavioral interventions, progress monitoring, and checks for intervention integrity; and (c) the teacher consented to participate in the study. The researcher met with each teacher participant prior to the study to solicit written consent for inclusion in the study.

Participants were five females and two males. The number of years of teaching experience varied slightly, with six of the participants ranging from 5-10 years and one participant having over 20 years of teaching experience. There was no minority representation; each teacher participant was Caucasian.

Measurement Instruments

Initial Contact/Criteria Determination Instrument

The purpose of the Initial Contact/Criteria Determination Instrument was to screen each school included by KSDE on the nomination list provided to the researcher, to ensure RTI implementation. The Initial Contact/Criteria Determination Instrument was developed by the researcher but it was adapted from a similar instrument used to determine RTI implementation of schools nationally in a study conducted by the National Center on Response to Intervention (see Appendix A).

Each school principal was contacted by the researcher via phone and asked about the following components of RTI implementation: (a) universal screening for academic concerns, (b) universal screening for behavioral concerns, (c) tiered academic interventions, (d) tiered behavioral interventions, (e) progress monitoring, and (f) checks for intervention integrity. The instrument was used to guide the conversation and record the principals' answers. If four of the six components were present, a follow up interview was scheduled where more detailed MTSS implementation questions were asked using the Principal Pre-Observation Protocol and Teacher Pre-Observation Protocol (see Appendix B and C).

Role Observation Instrument

The purpose of the Role Observation Instrument (see Appendix D) was to document each task the participating special education teachers engaged in throughout the school day.

Observations began five minutes prior to the first bell at the beginning of the school day and ended five minutes after the final bell at the end of the school day. The observer used the Role Observation Instrument throughout the school day, continuously recording how the teacher spent his/her time.

The Role Observation Instrument was a table consisting of eight columns. The first column (task number) was used to record the number of tasks occurring in the school day; the next three columns (start time, stop time, and total time) were used to record start, stop, and total time of each task. The fifth column (tier) was used to record in which tier of the RTI framework the task was taking place. The sixth (IEP) was used to record whether the students with whom the teacher was working had an individualized education program (IEP). Columns five and six (tier and IEP) were only utilized if applicable to the task in which the teacher was engaged. Finally, the last two columns (task code and description) were used to describe the task itself. A code was given to each task with an area for a brief description.

The Role Observation Instrument and the task codes were developed based on a comprehensive literature search of the empirical and prescriptive literature regarding the role of the special educator in an RTI framework. Beginning with ERIC, PsycINFO, and Dissertation Abstract International online databases, the following keyword search terms were used: *special education and RTI*; *role of special educator*; *tasks of special educator* and *tier three and special education*. From this body of literature, seminal articles were identified and used for ancestral searches.

Tasks were identified and for each task, a brief definition was written based upon the literature. The tasks were critically analyzed by creating a matrix (see Table 1), which allowed the researcher to place the tasks into similar categories. Then, a description and operational

definition were written for each task. Next, tasks were analyzed by elementary-level special educators with more than 10 years' teaching experience to ensure that the tasks were both appropriate and comprehensive. Finally, the instrument was field tested in two elementary schools in two different school districts to ensure inclusion of all vital tasks a special educator would be engaged in throughout the school day. Based on the results of these field tests, several tasks were added because they occurred frequently with several teachers in several different settings. The tasks that were included after the field tests are denoted with an asterisk (*) in the description below.

The identified tasks were assigned a set of predetermined codes that were divided into four categories: Interventionist, Diagnostician, Collaborator, and Manager. The codes themselves consisted of the first letter of the category in which the task was categorized (i.e., I, D, C, and M) and a corresponding number to identify each task.

The Interventionist category consisted of 10 tasks all related to instruction: (a) using evidence-based interventions/instruction (I-1), (b) assisting students with goal setting (I-2), (c) on-going progress monitoring (I-3), (d) implementing core content-area instruction (I-4), (e) implementing targeted supplemental instruction/small group/reteaching (I-5), (f) implementing intensive instruction/strategies/basic skills (I-6), (g) implementing social skills instruction (I-7), (h) implementing self-management instruction (I-8), (i) implementing vocational skills instruction (I-9), and learning an intervention (I-10).

The Diagnostician category consisted of 10 tasks all related to assessment: (a) implementing basic skills assessment (D-1), (b) implementing functional skills assessment (D-2), (c) implementing special education eligibility assessments (D-3), (d) interpreting assessment results to identify proper level of intervention placement with or without a team (D-4), (e)

interpreting assessment results to Special Education placement with or without a team (D-5), (f) interpreting assessment results to identify proper accommodations/modifications with or without a team (D-6), (g) explaining and discussing assessment results in RTI team meeting (D-7), (h) explaining and discussing assessment results in an IEP meeting (D-8), (i) learning how to implement assessment *(D-9) and how to implement functional skill assessment *(D-10).

The Collaborator category consisted of 20 tasks all related to collaboration. This category was divided into six subsections. Planning with General Education Teachers measured the following three tasks: (a) planning content/lesson (C-1), (b) planning universal screening/ progress monitoring (C-2), and (c) planning a method of instruction (C-3). Consulting with General Education Teachers contained the following five tasks: (a) providing pedagogical support to general education teachers (C-4), (b) providing support to general education teachers by sharing knowledge of characteristics of students with disabilities (C-5), (c) providing support to general education teachers by sharing knowledge of the special education process (C-6), (d) helping general education teachers with appropriate student accommodations and modifications (C-7), and (e) providing support to general educators by sharing knowledge of assessment (C-8). Teaching with General Educator Teachers contained the three following tasks: (a) co-teaching/team teaching (C-9), (b) progress monitoring (C-10) and (c) assisting in the general education classroom *(C-11). Instructional Coaching contained the tasks of peer coaching (C-12) and giving performance feedback (C-13). Supervising Paraprofessionals contained the tasks of consulting with a paraprofessional about a student *(C-14) and scheduling/managing a paraprofessional *(C-15). The final subsection Consulting with Student, Parent, School, and Community. It contained the following five tasks: (a) communicates and consult with parents about an IEP (C-16), (b) communicates and consults with students about an IEP (C-17), (c)

assists students with accommodations and modifications (C-18), (d) assists students with behavior management plans (C-19), and (e) consults with related service providers *(C-20).

Finally, the Manager category consisted of nine administrative-related tasks such as completing paperwork (M-1), answering/sending emails (M-2), attending meetings *(M-3), attending to student physical needs of student and teacher *(M-4, M-5), transporting students (M-6), assisting related service providers *(M-7), engaging in off-task behaviors *(M-8), and gathering teaching materials *(M-9).

This instrument was also used to identify when the teacher was engaged in an instructional activity (i.e., the researcher identified the task and chose one of the following codes (I-1,I-4, I-5, I-6, I-7, I-8, I-9, C-9, C-10 or C-11). Once an instructional activity was identified by the researcher and coded as such on the Role Observation Instrument, the Instructional Observation Instrument was administered to record specific instructional practices.

Instruction Observation Instrument

The purpose of this instrument (see Appendix E) was twofold: (a) to document and measure the teacher's instructional practices during the school day; and (b) to focus on and examine the instructional practices that took place during advanced tiers (i.e., any tier beyond Tier 1 of RTI).

The Instruction Observation Instrument was administered during all instructional activities, including activities occurring in (a) the general education classroom, (b) a resource room or (c) other supplemental instructional settings. The instrument had three foci. The first focus was to determine what portion of each class period was spent in major transitions. Major transitions are those transitions that occur while the class moves between places, activities, phases of a lesson, or lessons. The second focus was to determine the learning arrangement of

the classroom. Several types of learning arrangements are possible, ranging from whole-group instruction to independent work being completed by one student. The third focus was to determine the proportion of engaged time spent in each of 20 types of instructional activities identified on the instruction observational instrument.

Cornett (2010) developed the instruction observation instrument used in this study. He conducted a comprehensive literature search to identify empirical and prescriptive literature regarding instructional practice. Beginning with ERIC, PsycINFO, and Dissertation Abstract International online databases, the following keyword search terms were used: *instructional practice*, *instructional method*, *teaching method*, *classroom instruction*, and *inclusion teaching*. From this corpus of literature, seminal articles were identified and used for ancestral searches. Further, the three most recent editions of the *Handbook of Research on Teaching* were carefully examined (Gage, 1965; Richardson, 2001; Wittrock, 1986).

Culled from this literature base were 142 instructional and management activities. For each activity, a brief definition was written based upon the literature and printed onto 3-inch by 5-inch index cards. These index cards were then sorted into categories such that similar instructional and management activities were grouped together. After initial sorting was complete, some categories were combined due to their extreme similarity. Then, a description and operational definition were written for each instructional and management activity. These 16 categories were presented to an expert panel with extensive background in conducting intervention research and teaching in inclusive settings. The panel had nine members, five of the nine hold doctorates in education or developmental psychology, the remaining four each have 15 or more years' experience teaching students with disabilities in inclusive high schools. The panel was asked to (a) identify any missing instructional activities, (b) provide references for those

activities, (c) critique the description and operational definition of the activities, and (d) offer advice on the organization, categorization, or elimination of the categories of activities. Based upon the literature and this expert advice, the following categories and subcategories of activities were identified by Cornett. Presented below is a brief description for each category; the operational definitions used as decision criteria by observers when using the instruction observation instrument may be found in Appendix E.

Learning arrangement. The Learning Arrangement category consisted of five subcategories: large-group instruction, small-group instruction, individual teacher-led instruction, student peer pairs, and individual-independent work.

Transition time. Transition Time was a dichotomous category, either occurring or not occurring during the observation interval. It was recorded when the students were shifting between classroom activities.

Instructional activity. The Instructional Activity category consisted of 20 subcategories of activities and a not-engaged observational option. The subcategories of instructional activity were lecture, describe, two types of modeling, giving directions, three types of monitoring, three types of reviews, two types of feedback, graphic organizers, two reading activities, three types of formal assessment, and multi-media. An additional not-engaged time category was used to capture off-task teacher behavior during respective instructional activities.

The researcher conducted the observations over a three-day time period with each teacher participant. The observer was trained on data collection procedures of momentary time sampling (MTS). MTS is called an interval recording method. An interval recording method involves observing whether a behavior occurs or does not occur during specified time periods (Alvero, Struss, & Rappaport, 2007). Once the length of an observation session is identified, the time is

broken down into smaller intervals that are all equal in length. In this study, instructional time was separated into intervals that were 30 seconds long.

In MTS, the observer looks up and records whether a behavior occurs at the very end of the given interval. A timer, such as alarm on a handheld watch or a tape recording with a sound indicating the end of an interval, can be used to alert the observer that it is time to look up, observe whether a behavior is occurring, and record the result on a data sheet. In this study, a stopwatch was set to continuously run 30-second intervals, and the observer watched the timer to determine when to record a behavior on the data sheet. Data collection was conducted in real time using MTS beginning when the teacher began instruction and ending when the teacher stopped instruction. Data were collected during 30-second intervals in each of the three foci.

Interview Protocols

The researcher created three interview protocols (see Appendix B, C, and F), two for the purpose of obtaining information before observations and one to obtain information after observations as a way of validating data recorded during observations. First, the Principal Pre-Observation Protocol was used to gather information regarding the school's implementation of RTI. It consisted of three sections: (a) RTI planning, (b) RTI implementation, and (c) RTI evaluation. Each of these sections contained questions related to planning, implementation, and evaluation of RTI from the principal's perspective.

The researcher conducted interviews with the principals using the Principal Pre-Observation Protocol prior to observing in each school. As mentioned, this interview was also used as a screening process to ensure that the school was, in fact, implementing RTI.

The second protocol was the Teacher Pre-Observation Protocol. This protocol was used to gather information regarding the school's implementation of RTI; in addition, it was used to

gather preliminary information about how the special educators perceived their role in the implementation of RTI.

The Teacher Pre-Observation Protocol consisted of three sections: (a) RTI planning, (b) RTI implementation, and (c) RTI evaluation. Each of these sections contained questions related to planning, implementation, and evaluation of RTI from the teacher's perspective. The researcher conducted interviews with the teacher using the *Teacher Pre-Observation Protocol* prior to observing in each school. As mentioned, in order to determine which teachers would be included in this study, this interview was used as a screening process to ensure that the school was, in fact, implementing RTI and that the teacher played an active role in RTI implementation.

Third, the Teacher Post-Observation Protocol was used to gather additional data regarding the role of the special educators in an RTI framework and their instructional practices as they relate to instructional time within tiered intervention structure of RTI. This interview protocol consisted of five sections. The first section contained general questions about the role of the special educator such as the number of students on their caseload. This section also contained questions about how, where, and with whom the special educators spend their time. The second section contained questions about their role as a collaborator and included questions about how they collaborate with other teachers, administrators, parents, and students. The third section contained questions about the special educators' role as an interventionist. This section included questions about how they choose and evaluate instructional interventions. The fourth section contained questions about their role as a diagnostician and included questions about administering, interpreting, and explaining assessments. Finally, the fifth section addressed issues such as paperwork, emails, and administrative duties, and included questions to help the researcher understand these aspects of the role of the special educator.

Inter-Observer Reliability

Initially, the researcher and another observer (i.e., doctoral student with 10 years of public school teaching and administrative experience) obtained reliability using the Role Observation Instrument and Instruction Observation Instrument by reading and discussing the operational definitions written for each task and instructional practice included in each of the instruments. The researcher and other observer also spent more than 20 hours watching videos of teachers conducting instruction; finally, they spent three school days observing a special educator until reliability of 80% or better was established.

In order to establish inter-observer reliability, two observers present during the observation phase for at least 20% of total observation minutes. To determine inter-observer agreement, the two data collectors independently observed and scored 22% of the time sample intervals. Inter-observer percent reliability agreement was calculated using the following formula: Percent Reliability = (Number of Agreements /Number of Agreements + Disagreements) X 100. Inter-observer agreement across all intervals was 98% reliability for the Role Observation Instrument and 95% for the Instruction Observation Instrument.

Procedures

Pre-Observation Phase

First, the researcher contacted the Kansas director of special education and asked for a list of schools within the state that were implementing RTI, in particular schools that would provide a good representation of the roles of special educators both in the beginning stages of involvement in RTI implementation and with experience in RTI implementation. A letter of support and a list of potential research sites were provided, and from this list the researcher contacted each school district's director of special education via email. The email contained a

brief description of the study, a letter of support from the Kansas Director of Special Education (see Appendix A) and a request for a brief phone call to discuss the study further in order to obtain district approval to conduct the study in the school district. Of the 10 school districts nominated, seven district directors of special education responded and district approval was granted.

Of the seven school districts where approval was granted, nine individual schools were identified by the district directors of special education. Next, the researcher sent the principals from the nine potential schools to be included in the study an email containing a brief description of the study, the letter of support from the Kansas director of special education mentioned previously, and a request of a brief phone call to discuss the study further and to obtain more information regarding the school's implementation of RTI. All nine principals gave permission to be included in the study.

Upon agreement, the researcher then contacted each principal by phone and gathered information regarding implementation of RTI in the school (see Initial Contact/Criteria Determination in Appendix A). If it was determined that the school was, indeed, implementing RTI and at least four out of six components listed within the Initial Contact/Criteria Determination document were in place, the principal was asked for a follow up phone call during which he/she would be interviewed using the Principal Pre-Observation Protocol. During these interviews, RTI implementation was discussed in detail (see Principal Pre-Observation Protocol, Appendix B). The principal was asked to also choose which special education teacher (if there were more than one special educator at the school) he/she would suggest participate in the study, keeping in mind the following guidelines: (a) the teacher spends time during the school day in the general education classroom, (b) the teacher provides skill and or strategy instruction in the

resource/pullout setting and (c) the teacher is willing to participate in the study. Only seven of the nine sites were chosen by the researcher because of close proximity.

Next, the researcher contacted the special education teacher and a pre-observation interview was conducted using the Teacher Pre-Observation Protocol. These interviews were also used to obtain a third source of information regarding RTI implementation (see Teacher Pre-Observation Protocol, Appendix C).

Thus, a determination was made by the researcher whether the school was indeed implementing RTI based upon the following criteria using the three previously mentioned sources of information (Initial Contact/Criteria Determination, Principal Pre-Observation Protocol and Teacher Pre-Observation Protocol): (a) school-wide screening for academic and behavioral concerns, (b) tiered academic and behavioral interventions, (c) progress monitoring and data sharing, and (d) checks for intervention integrity.

Finally, the researcher scheduled a time to visit the school to meet with the special education teacher who would participate in the study. During the first meeting, the following occurred: (a) the researcher obtained written informed consent from the teacher, (b) the researcher was oriented to the school's physical layout, a tour was given, (c) a tentative school day schedule was discussed, and (d) dates for formal observation were scheduled.

Observation Procedures

Each teacher participant was observed for three consecutive full school days (i.e., five minutes before the first bell of the day until five minutes after the last bell of the day). Each observation day consisted of 350-450 minutes for a total of at least 1,000 observation minutes per teacher participant. During each observation day, the researcher recorded data using both the Role Observation Instrument and the Instruction Observation Instrument.

The researcher began observations five minutes before the first bell of the day. The researcher identified the task the teacher was engaged in by choosing from a list of codes on the Role Observation Instrument. Once the researcher identified the task and corresponding code, the timer was started and the start time was recorded; when the task was completed, the researcher stopped the timer and recorded the stop time along with the total time spent on that specific task. For each task, the researcher also recorded at which tier of intervention the task took place and if the students the teacher was working with have IEPs (if applicable). If the task code was one of the following instructional tasks, I-4, I-5, I-6, I-7, I-8, I-9, C-9, C-10 or C-11, the researcher used the Instruction Observation Instrument to collect additional observation data.

Data collection for the Instruction Observation Instrument adhered to the following procedures. After the teacher began instruction, the researcher started the timer. After 30 seconds, the researcher marked the first observation on the horizontal line. The observation was completed within 30 seconds, and the next observation began when the timer reached 0. The Instruction Observation Instrument contained three categories of observation variables listed along the top row of the matrix (1-Learning Arrangement, 2-Transition Time, and 3-Instructional Activity). At each observation interval, the researcher made one mark in each category so that every row contains three marks. Only one mark was made in the Learning Arrangement boxes. If the class was transitioning between activities a "1" was marked, and if they were not, a "0" was marked. Finally, the researcher marked only one instructional activity box during each interval with the first instructional activity observed at the beginning of the observational interval.

Post-Observation Procedures

At the end of the school day on the third day of observation, the researcher conducted a 45- to 60-minute interview with each teacher participant. These interviews were conducted in person in a quiet, private location and were audio-recorded. The researcher asked questions from the Teacher Post-Observation Protocol.

Research Design and Data Analysis

The study employed both qualitative methods and quantitative methods. A mixed-method approach served to converge findings and extend the breadth of the inquiry (Creswell, 1994). Specifically, qualitative methodology was used because of its broad approach to understanding and explaining the meaning of social phenomenon in a naturalistic setting (Marshall & Rossman, 1999; Merriam, 1998). Quantitative methods were employed to analyze observational and MTS data found on the Role Observation Instrument and Instructional Observation Instrument.

Data were collected from five sources in three phases. Table 4 provides an overview of the data collection methods. The first were pre-observation interviews with each principal. The interviews were conducted either in person or via phone by the researcher before observations. The second were pre-observation interviews with each teacher. These were also conducted either in person or via phone by the researcher before observations. The third was the role observation. Each teacher was observed for three full school days. The duration of each day of observation was 400-500 minutes. This amount of time was consistent with a normal school day and would be ample to observe in detail the teacher's actual practices for a typical school day. The fourth source of data was the instructional practices observation. The researcher gathered this type of data along with the role observation data during the same three days of observation. The fifth source of data was the post-observation interview with the teacher. Together with the pre- and

post-observational interviews, this observation time was sufficient to triangulate findings and to adequately answer the research questions (Patton, 1990).

For the Role Observation Instrument, the data were analyzed in three phases. First, data were analyzed to determine the percentage of time spent in the four role categories (i.e.,

Table 4

Research Phases and Measurement Instruments

Appendix	**A**	**B**	**C**	**D**	**E**	**F**
Measurement Instrument	Initial contact/ criteria determination	Principal pre-observation	Teacher pre-observation	Role observation	Instruction observation	Teacher post-observation
Phase	Pre-observation	Pre-observation	Pre-observation	Observation	Observation	Post-observation
Where	By phone	In person/phone	In person/phone	School	School	School
How	By researcher	By researcher	By researcher	By researcher & reliability partner	By researcher & reliability partner	By researcher
Why	*Selection for study data *RTI implementation data	*Selection for study data *RTI implementation data *SPED teacher role data *Administrative support data	*Selection for study data *RTI implementation data *SPED teacher role data *SPED teacher knowledge of RTI data	*SPED teacher role data	*How different does instruction look in tiered levels of intervention	*SPED teacher role data * Member check

Collaborator, Interventionist, Diagnostician, and Other). Second, for each of the role categories, additional analysis was conducted to determine which tasks were included in each category.

Lastly, data from each teacher for the four role components and tasks included in those components were disaggregated to reflect differences across all teachers.

For the Instruction Observation Instrument, the data were analyzed in three phases. First, data for all the teachers included in the study were compiled to determine the various instructional practices used by special educators and the frequency of their use. Second, for each teacher data were analyzed to determine their individual use of instructional practices and frequency of those instructional practices. Third, instructional practices data were analyzed in order to compare and contrast instructional practices in the advanced tiers of RTI implementation.

The interview data collected during this study were analyzed in the following manner. First, interviews were recorded in transcripts of narrative data, and the transcripts were analyzed using the modified version of the Glaser and Strauss (1967; Strauss & Corbin, 1990) constant comparative method as recommended by Lincoln and Guba (1985) and Skrtic, Guba, and Knowlton (1985). It involves four operations: unitizing, categorizing, filling in patterns, and developing a narrative report (Miles & Huberman, 1994; Skrtic, et al., 1985).

Unitizing is the process of identifying units of information, and categorizing is the process of organizing these units into sets of like and related information forming an overall taxonomy of data. Both of these analytic processes were conducted manually by printing narrative data on 3-inch by 5-inch index cards, and then sorting and categorizing the cards. Each participant's interview data were analyzed separately to maintain site-specific findings. Then, a cross-case analysis was performed to identify common themes across all seven research sites.

CHAPTER IV

RESULTS

This chapter will report the findings related to the four key components that constitute the role of the special educator within an RTI framework, including which specific tasks are carried out within each role component. Teacher differences across role components and tasks within each will also be highlighted. Additionally, the chapter will report findings related to the instructional practices of special educators, specifically, what instructional behaviors special educators evidence most frequently in the advanced RTI tiers and how these instructional practices align with effective instructional practices that have been identified in the empirical literature. Finally, the chapter will report findings from interviews with the seven teacher participants. These findings will be grouped into two broad categories (i.e., Role of the Special Educator and Special Education Instruction) that serve to cross-check (i.e., triangulate) the previously mentioned data sets (i.e., Role Component Results and Instructional Practices Results). This, in turn, will help to identify any inconsistencies in the data and will serve as a way of checking possible discrepancies between what the teachers in this study *said* in the interviews and what they *did* during the observations.

Role Components Results

The findings of the Role Observation Instrument will be reported in this section. First, a report of the combined data of the seven teacher participants will be described by detailing the proportion of time spent in each role component (i.e., collaborator, interventionist, diagnostician and manager). Second, the combined data of the seven teachers will be described by detailing which behavioral tasks constitute each role component. Third, data will be disaggregated by each teacher participant to show what proportion of each special educator's time was spent in the four

key roles as defined by the literature (i.e., collaborator, interventionist, diagnostician, manager) and within each key role, what behaviors does each special educator evidence most frequently.

Figure 2 shows the combined role component data for the seven teacher participants. A total of 7,622 minutes of observation (i.e., 3 school days per teacher or 21 school days) was recorded. The percentages represented above are of this total. As illustrated, the *Manager* role constituted the largest proportion of time (33%). Of that 33%, the data were broken down further to explain what tasks were included in the role component and what proportion of time was spent in each task (see Table 5).

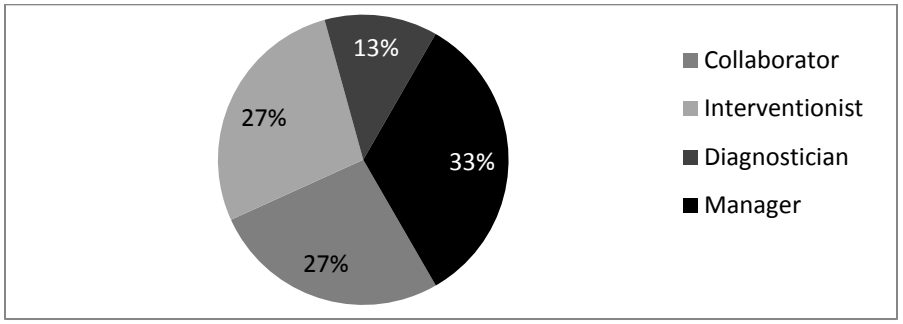


Figure 2. Key role components data, all teachers combined.

The tasks included in this role component were as follows: (a) doing paperwork (53%) (i.e., lesson planning and IEP paperwork); (b) doing email (7%); (c) conducting meetings/administrative duties (i.e., IEP meetings, parent meetings, staff meetings and duties assigned by the administrator) (13%); (d) providing student transport (i.e., walking with students to and from the general education classroom) (10%); (e) engaging in off-task behaviors (7%); (f) gathering materials for instruction (7%); (g) tending to personal needs of teacher (i.e., bathroom breaks) (3%); and (h) assisting with personal needs of student (0.16%).

The *Interventionist* and *Collaborator* role components were equal in their proportion of

Table 5

Percentage of Time Spent in Manager Role Component Tasks

Tasks Within Manager Role Component	Percentage of Time in Specific Task
Doing Paperwork	53%
Conducting Meetings/Administrative Duties	13%
Providing Student Transport	10%
Doing Email	7%
Gathering Materials for Instruction	7%
Engaging in Off-Task Behaviors	7%
Tending to Personal Needs of Teacher	3%
Assisting with Personal Needs of Student	0.16%

time (27%) of the total number of minutes of observation. Once again, these role components were divided into specific tasks and the proportion of time spent in those tasks.

The *Interventionist* role component included the following tasks (see Table 6): (a) using evidence-based practices (42%); (b) providing intensive instruction (29%) (i.e., Tier 3 intervention not utilizing evidence-based practices); (c) providing supplemental instruction (24%) (i.e., Tier 2 intervention not utilizing evidence-based practices); and (d) doing ongoing progress monitoring (5%).

The *Collaborator* role included the following tasks (see Table 7): (a) assisting in the classroom (23%) (i.e., providing special education services in the general education classroom that was not co-teaching); (b) consulting with students about their IEP (20%); (c) consulting with students about their behavior/behavior management (15%); (d) consulting with paraprofessionals about student needs (10%); (e) consulting with related service providers (9%) (i.e., speech-language pathologist, physical therapist, occupational therapist, autism specialist and social worker); (f) scheduling and managing paraprofessionals (7%); (g) providing support to general

Table 6

Percentage of Time Spent in Interventionist Role Component Tasks

Tasks Within Interventionist Role Component	Percentage of Time in Specific Task
Using Evidence-Based Practices	42%
Providing Intensive Instruction	29%
Providing Supplemental Instruction	24%
Doing Ongoing Progress Monitoring	5%

Table 7

Percentage of Time Spent in Collaborator Role Component Tasks

Tasks Within Collaborator Role Component	Percentage of Time in Specific Task
Assisting in Classroom	23%
Consulting with Students/IEP	20%
Consulting with Students/Behavior	15%
Consulting with Paraprofessional/Student	10%
Consulting with Related Service Providers	9%
Scheduling and Managing Paraprofessional	7%
Providing Support to General Educators/Special Education Characteristics	6%
Providing Support to General Educators/Accommodations	5%
Communicating with Parents/IEP	3%
Providing Support to General Educators/Assessment and/or Intervention	1%
Providing Support to General Educators/ Pedagogy	1%
Planning with General Educators	.4%

educators/characteristics of students with disabilities (6%); (h) providing support to general educators/accommodations for students with disabilities (5%); (i) communicating with parents about their child's IEP (3%); (j) providing support to general educators/assessments and interventions (1%); (k) providing support to general educators/ pedagogy (1%); and (l) planning

with general educators (.40%).

Finally, the *Diagnostician* role constituted 13% of the total 7,622 minutes of observation. Further dividing the data on this component shows a detailed list of tasks and their proportion of occurrence (see Table 8). The *Diagnostician* role components included the following tasks: (a) explaining/discussing assessment results in an RTI team meeting (24%); (b) explaining/ discussing assessment results in an IEP team meeting (20%); (c) participating in professional development on basic skills assessment (20%); (d) identifying proper accommodations/ modifications with IEP team (10%); (e) identifying proper level of intervention with RTI team (8%); (f) participating in professional development on functional skill assessment (6%); (g) implementing basic skills assessment (4%); (h) implementing special education eligibility assessments (4%); and (i) implementing functional skills assessment (2%).

Table 8

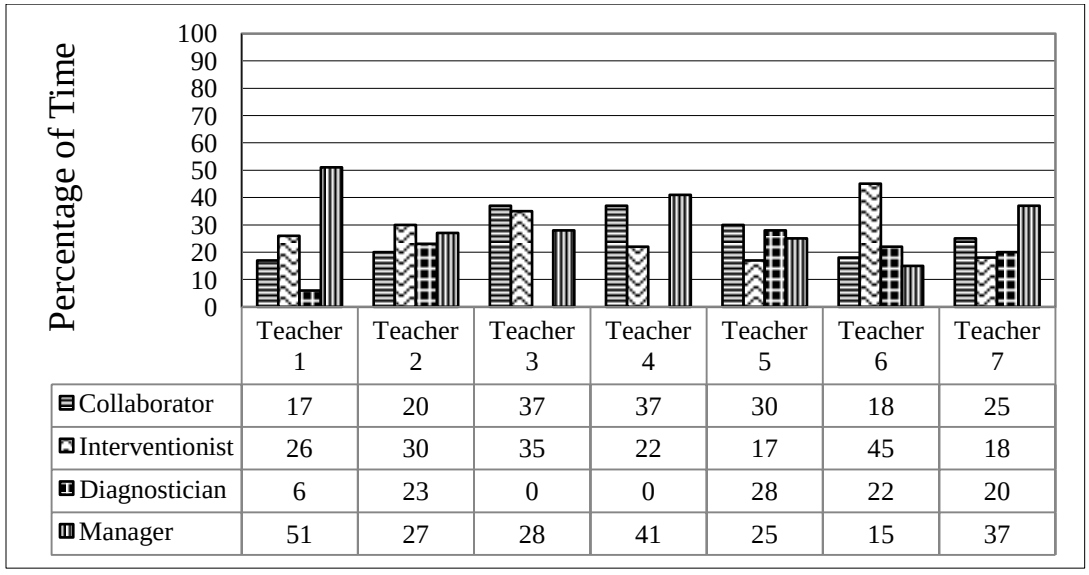
Percentage of Time Spent in Diagnostician Role Component Tasks

Tasks Within Diagnostician Role Component	**Percentage of Time in Specific Task**
Explaining/Discussing Assessment Results in RTI Team Meeting	24%
Explaining/Discussing Assessment Results in IEP Team Meeting	20%
Participating in Professional Development/Basic Skill Assessment	20%
Identifying Proper Accommodations/Modifications with Team	10%
Identifying Proper Level of Intervention with Team	8%
Participating in Professional Development/Functional Skill Assessment	6%
Implementing SPED Eligibility Test	4%
Implementing Basic Skills Assessment	4%
Implementing Functional Skills Assessment	2%

As evidenced by the data above, the role components, for the most part, were equally distributed between each teacher participant. In some cases, data varied from teacher to teacher. Those differences are reported in the following section.

Role Component Differences Across Teachers

Figure 3 shows the distribution of the four role components among the seven teachers observed in this study. This section describes the variance between teachers within each role component.



	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7
Collaborator	17	20	37	37	30	18	25
Interventionist	26	30	35	22	17	45	18
Diagnostician	6	23	0	0	28	22	20
Manager	51	27	28	41	25	15	37

Figure 3. Role component distributions across individual teachers.

Across the seven teachers, the percentage of time spent in the *Collaborator* role component ranged from 17% to 37% (mean 26.3%, *SD* = 8.56). The percentage of time spent in the *Interventionist* role component ranged from 17% to 45% (mean 27.57%, *SD* = 10.01%). The percentage of time spent in the *Diagnostician* role component ranged from 0% to 25% (mean 14.14%, *SD* = 11.78%). Teacher 3 and Teacher 4 were not observed engaging in tasks that were a part of the *Diagnostician* role component. The percentage of time spent in the *Manager* role component ranged from 15% to 51% (mean 32%, *SD* = 11.87%).

Task Differences Across Teachers

Collaborator task differences. Figure 3 showed that the proportion of time spent within the *Collaborator* role did not vary greatly from teacher to teacher. Nevertheless, the tasks in which the special educators were engaged within the *Collaborator* role showed large areas of variance, in particular, with *whom* the teachers were collaborating. Figure 4 shows that Teacher 1, Teacher 3, and Teacher 7 spent a proportion of their time in the general education classroom while the remaining four teachers were not observed in the general education classroom. Figure 5 shows that the remaining four teachers (i.e., Teacher 2, Teacher 4, Teacher 5, and Teacher 6) were engaged in tasks that required collaboration with students, parents, paraprofessional, and related service providers. Figure 5 also shows that Teacher 1 (52%) and Teacher 2 (37%) used a significant proportion of their time within the *Collaborator* role collaborating with paraprofessionals, Teacher 4 (19%), Teacher 5 (21%), and Teacher 6 (25%) used a moderate proportion of time collaborating with paraprofessionals, whereas Teacher 3 was not observed collaborating with paraprofessionals.

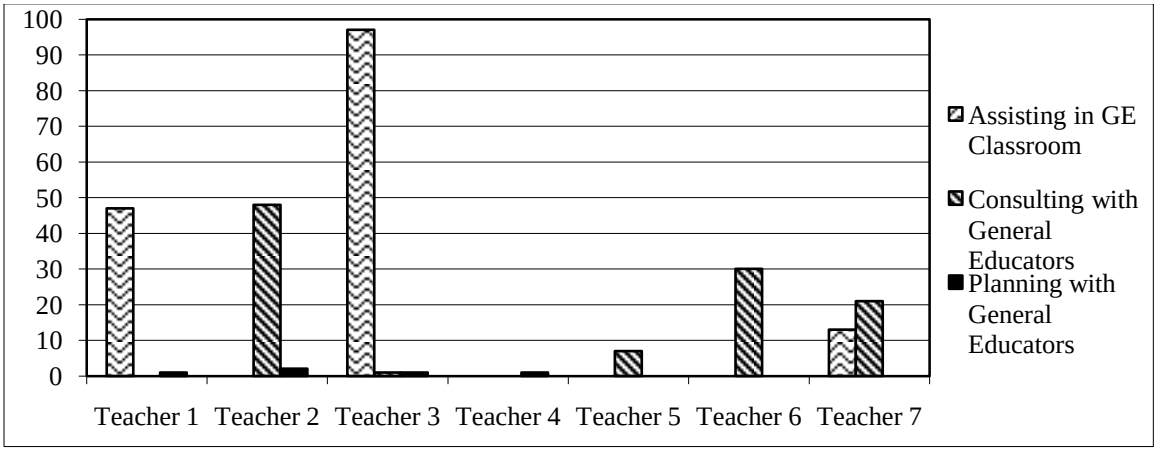


Figure 4. Collaboration with general education.

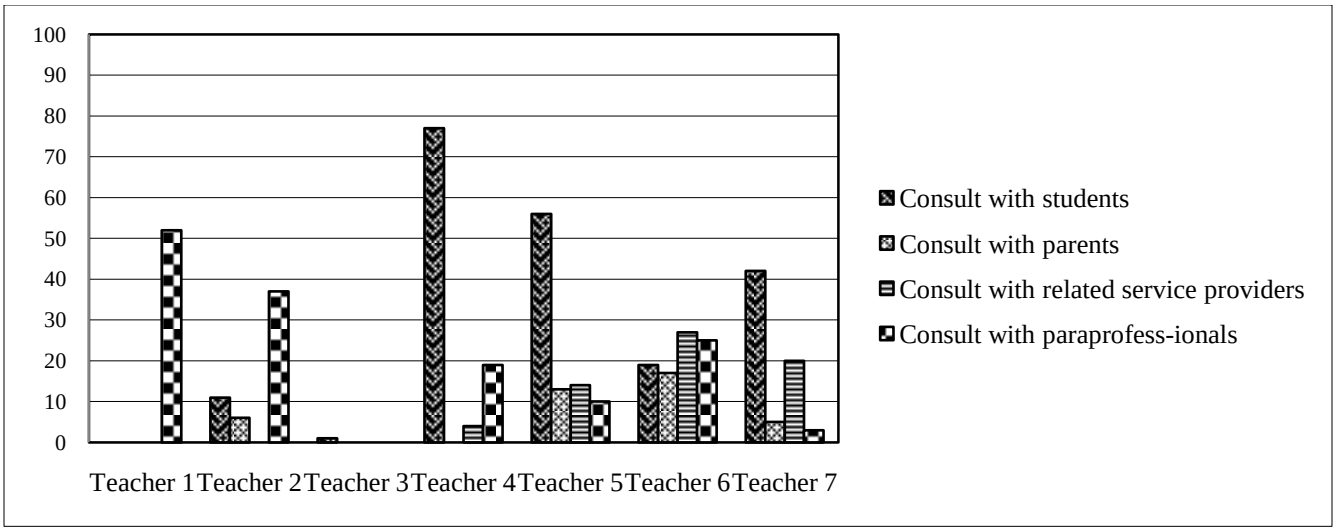
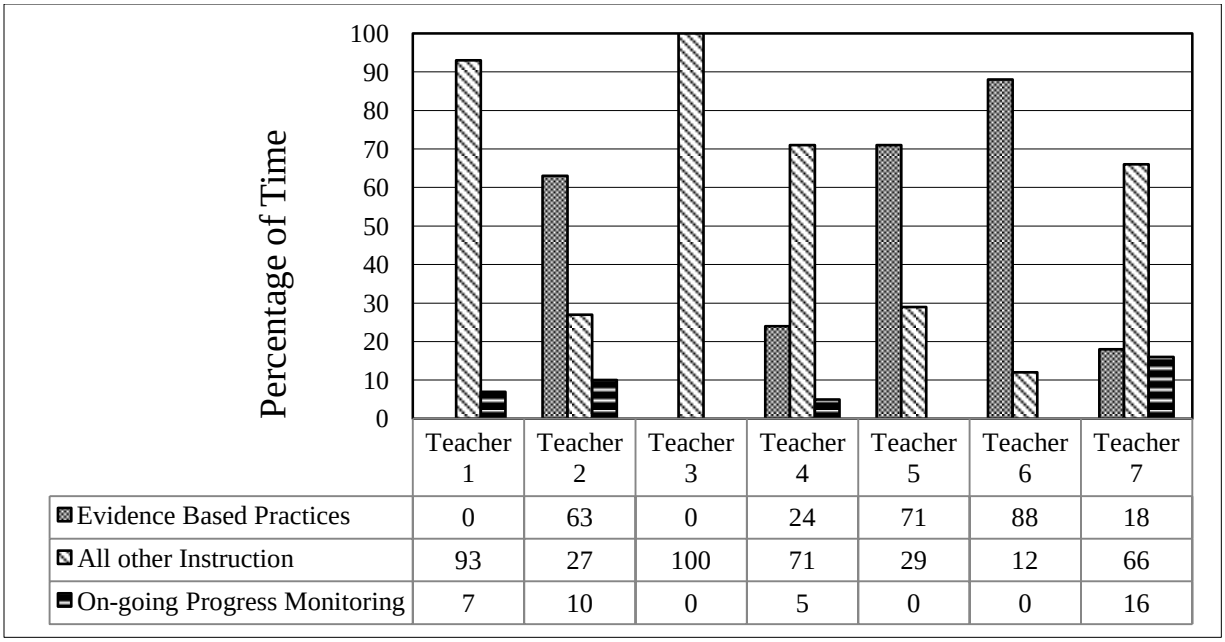


Figure 5. Collaboration with students, parents, related service providers, and paraprofessionals, teacher variance.

Interventionist tasks differences. Figure 6 shows teacher differences with regard to their use of evidence-based practices, all other instruction (i.e., instruction that was not an evidence-based practice) and ongoing progress monitoring during the *Interventionist* role component. Teacher 2 (63%), Teacher 5 (66%), and Teacher 6 (88%) were observed engaging in instruction that used evidence-based interventions a significant proportion of their time, which was recorded in the *Interventionist* role component. Teacher 4 (24%) and Teacher 7 (18%) engaged in instruction that used evidence-based interventions a moderate proportion of time within the *Interventionist* role, whereas Teacher 1 and Teacher 3 were not observed engaging in instruction that utilized evidence-based interventions. Also of note, Teacher 3, Teacher 5, and Teacher 6 were not observed engaging in ongoing progress monitoring. The remaining four teachers were engaged in ongoing progress monitoring less than a quarter of their total instructional time: Teacher 1 (7%), Teacher 2 (10%), Teacher 4 (5%) and Teacher 7 (16%).



	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7
Evidence Based Practices	0	63	0	24	71	88	18
All other Instruction	93	27	100	71	29	12	66
On-going Progress Monitoring	7	10	0	5	0	0	16

Figure 6. Interventionist task differences, teacher variance.

Diagnostician task differences. Tasks included in the *Diagnostician* role component can be categorized into the following: (a) implementing assessment; (b) explaining/discussing assessment; and (c) learning assessments. Among the five teachers who were observed in tasks within the *Diagnostician* role component, several differences were noted. First, Teacher 2 and Teacher 7 did not implement assessments at all during this observation; conversely, Teacher 1 was *only* observed implementing assessments. Second, Teacher 2, Teacher 5, Teacher 6, and Teacher 7 were observed engaged for a large proportion of their time in tasks within the *Diagnostician* role that required explaining and discussing the results of assessments. Finally, Teacher 1, Teacher 2, and Teacher 6 were not observed in tasks in which they were learning to implement assessments. Teacher 7 was observed engaged in tasks where she was learning to implement an assessment more than a quarter of the total time observed within the *Diagnostician* role, whereas Teacher 5 was observed engaged in tasks related to learning to implement

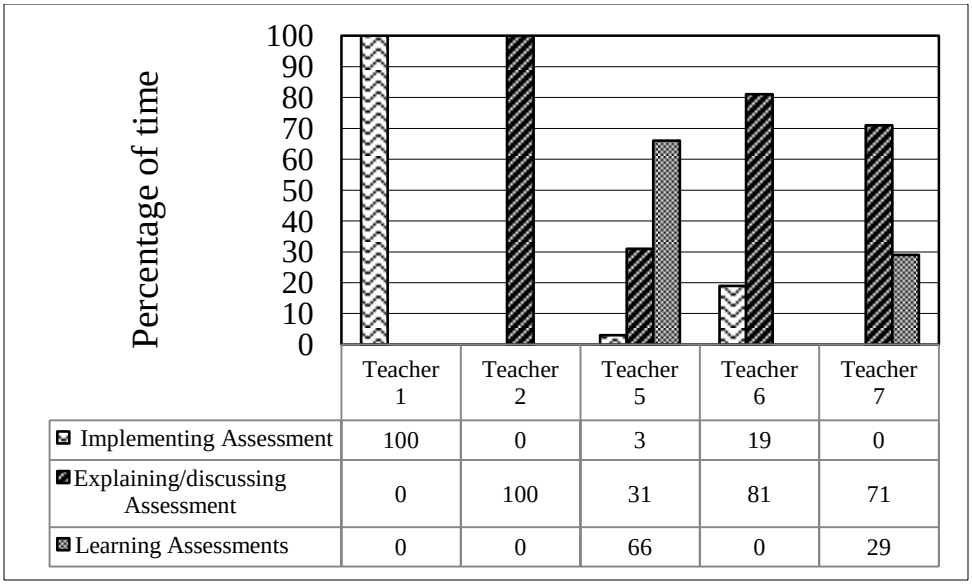
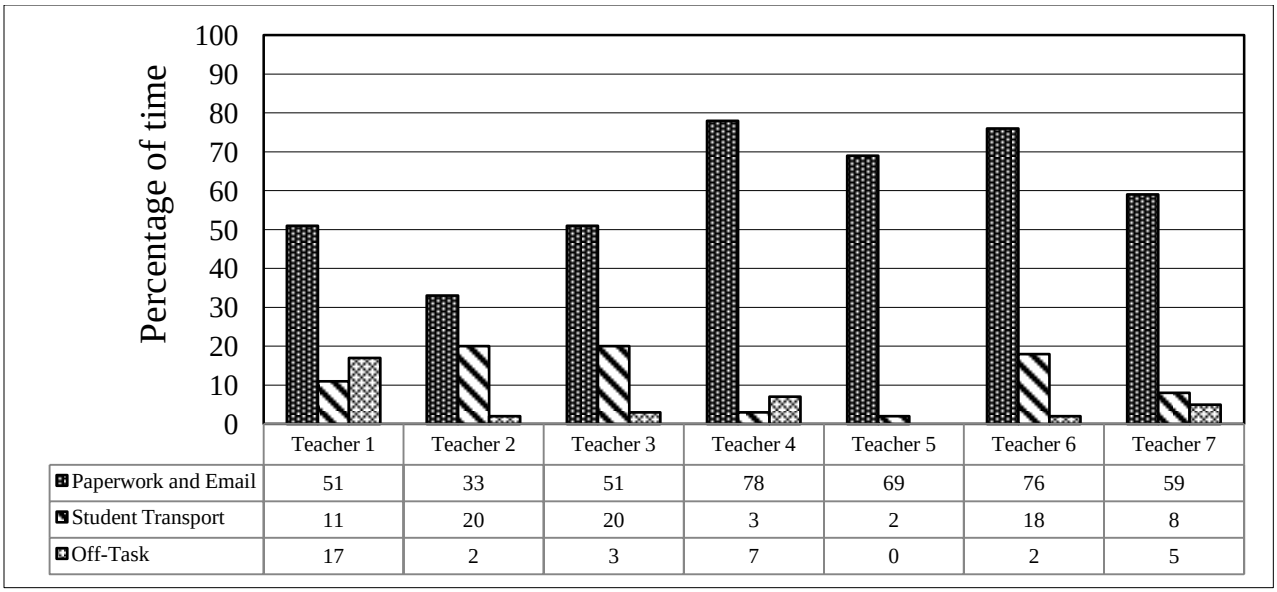


Figure 7. Diagnostician task differences, teacher variance.

assessment more than half of the total time observed in the *Diagnostician* role.

Manager task differences. The *Manager* role component contained three major categories of tasks, doing paperwork and email, providing student transport (i.e., supervising students as they walk from general education to special education), and engaging in off-task behaviors (i.e., engaged in activities that are not job related). Variance across these categories is illustrated in Figure 8. Consistently, all teachers were engaged in tasks that constituted paperwork and email more than 50% of the total time observed within the *Manager* role component. Six of the seven teachers engaged in off-task behaviors less than a quarter of the total time observed in the *Manager* role, whereas Teacher 6 was not observed engaging in any off-task behaviors. Finally, all teachers were engaged in transporting students from the general education setting to the special education setting.



	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7
Paperwork and Email	51	33	51	78	69	76	59
Student Transport	11	20	20	3	2	18	8
Off-Task	17	2	3	7	0	2	5

Figure 8. Manager task differences, teacher variance.

Instructional Practices

The findings from this part of the study will be reported using the same methodology as Hattie (2009) in a synthesis of more than 800 meta-analyses of instructional practices. Cautioning against labeling effect sizes as small, medium, and large, Hattie explained that some variables that show small effect sizes may, indeed, be important. He used the following example from the medical field:

> Rosenthal and DiMatteo (2001) demonstrated that the effect size of taking low does aspirin in preventing a heart attack was $d = 0.07$, indicating that less than one-eighth of one percent of the variance in heart attacks was accounted for by using aspirin. Although the effect size is small, this translates into the conclusion that 34 out of every 1,000 people would be saved from a heart attack if they used low does aspirin on a regular basis. (p. 9)

Hattie concluded that the effect size of 0.40 sets a level where effects enhance achievement in such a way that real-world differences are noted. He refers to this as the hinge-

point or h-point. Furthermore, he states that all the influences above the h-point (d = 0.40) have the greatest effects on student achievement and those below the h-point have typical effects or reflect accomplishment that would be realized in a typical year of schooling. In this study, for data analysis and report of findings, Hattie's h-point was used as a division between instructional practices which have greatest effects and those with typical effects.

The results from the Instruction Observation Instrument will be reported in this section. First, the combined data of the seven teacher participants will be described by detailing the proportion of instructional time spent engaging in instructional practices with greatest effects (i.e., effect sizes greater than .40) and instructional practices with typical effects (i.e., effect sizes less than .40). Second, data will be disaggregated by teacher participant to show what proportion of each special educator's instructional time was spent engaging in instructional practices with the greatest effects and instructional practices with typical effects. Third, the combined instructional practices data for the seven teacher participants will be described by comparing instructional practices in advanced tiers of RTI (i.e., Tier 2 and Tier 3).

Instructional Practices Data, Total

The researcher observed the teacher participants in this study engaged in tasks related to instruction for a total of 2,826 total minutes. Of those minutes, 77.63% of the instructional time was spent in instructional practices with greatest effects in student achievement. Tasks included: (a) feedback (11.93%) (i.e., simple and elaborated teacher feedback); (b) exposure to reading (11.38%) (i.e., reading aloud or silently by the teacher or student); (c) manipulate/generalize (10.21%) (i.e., using a previously taught skill/strategy or content knowledge applied to a situation other than where it was learned); (d) fact/concept review (9.29%) (i.e., teacher reviews previously learned fact or concept); (e) give directions (8.95%); (f) on-going assessment (8.20%)

(i.e., progress monitoring, tests, quizzes); (g) skill/strategy review (6.67%) (e.g., teacher reviews previously learned skill/strategy by reviewing steps); (h) modeling (4.53%) (i.e., teacher implicit model by demonstration only and teacher explicit model by demonstration and explanation); (i) questioning (3.24%); (j) video (1.96%); (k) listening (1.06%) (i.e., teacher listening to students verbalization of content); (l) graphic devices (0.07%) (i.e., graphic organizers); and (m) describe skill/strategy (0.04%) (i.e., teacher presents new strategy information).

The remaining 22.37% of the teachers' instructional time was spent engaging in instructional practices that produce typical effects in student achievement. These tasks included physical observation (11.08%), teachers not engaged in instruction (9.24%) (i.e., off-task), and lecture (2.05%) (i.e., teacher presenting new material by simply talking at the students). See Table 9.

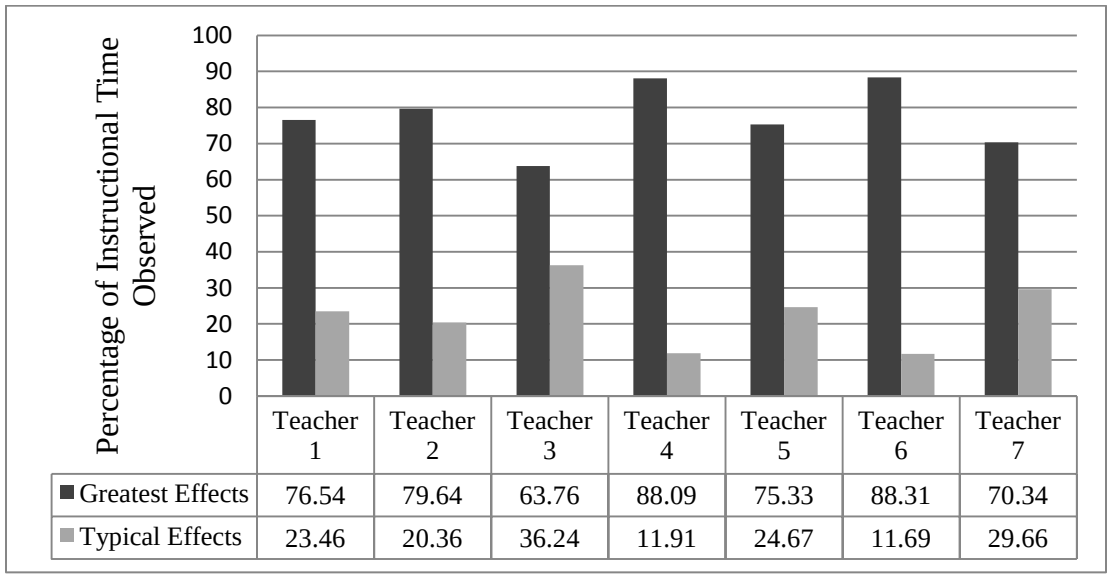
Table 9

Proportion of Time Spent by All Teachers Engaging in Instructional Practices with Greatest Effects vs. Typical Effects

Instructional Practices with Greatest Effects		**Instructional Practices with Typical Effects**	
Feedback	11.93%	Physical Observation	11.08%
Exposure to Reading	11.38%	Not Engaged in Instruction	9.24%
Manipulate/Generalize	10.21%	Lecture	2.05%
Fact/Concept Review	9.29%		
Give Directions	8.95%		
On-going Assessment	8.20%		
Skill/Strategy Review	6.67%		
Modeling	4.63%		
Questioning	3.24%		
Video	1.96%		
Listening	1.06%		
Graphic Devices	0.07%		
Describe Skill/Strategy	0.04%		
	Total		**Total**
	77.63%		**22.37%**

Instructional Practices, Differences Across Teachers

Across the seven teachers, the percentage of time spent engaging in instructional practices that produce the greatest effects in student achievement ranged from 63.76% to 88.31% (mean 77.43%, *SD* = 8.94). The percentage of time spent engaging in instructional practices that produce typical effects in student achievement ranged from 11.69% to 36.24% (mean 22.57%, *SD* = 8.94%). See Figure 9.



	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5	Teacher 6	Teacher 7
Greatest Effects	76.54	79.64	63.76	88.09	75.33	88.31	70.34
Typical Effects	23.46	20.36	36.24	11.91	24.67	11.69	29.66

Figure 9. Instructional practices data, differences across teachers.

Instructional Practices, Differences Across Advanced Tiers

Table 10 shows a comparison between the proportions of time teachers spent engaging in instructional practices that produce the greatest effects and those that produce typical effects in Tier 2 vs. Tier 3 of an RTI model. None of the teacher participants conducted instruction in Tier 1 of an RTI model and only four of the seven teachers conducted instruction in Tier 2. All of the teachers conducted instruction in Tier 3.

Table 10

Proportion of Instructional Time Spent Engaging in Instructional Practices with Greatest Effects and Typical Effects in Advanced Tiers

Instructional Practices with Greatest Effects			**Instructional Practices with Typical Effects**		
	Tier 2	**Tier 3**		**Tier 2**	**Tier 3**
Feedback	11.32%	12.64%	Physical Observation	19.63%	5.71%
Exposure to Reading	12.82%	10.73%	Not Engaged in Instruction	6.63%	9.98%
Manipulate/Generalize	11.41%	11.22%	Lecture	1.68%	2.34%
Fact/Concept Review	8.40%	10.41%			
Give Directions	9.37%	8.25%			
On-going Assessment	5.48%	9.32%			
Skill/Strategy Review	1.50%	9.06%			
Modeling	5.84%	3.57%			
Questioning	2.92%	2.74%			
Video	0.97%	2.97%			
Listening	2.03%	0.89%			
Graphic Devices	0.00%	0.12%			
Describe Skill/Strategy	0.00%	0.06%			
	Total	**Total**		**Total**	**Total**
	72.06%	**81.97%**		**27.94%**	**18.03%**

In Tier 2, teachers engaged in physical observation almost four times more than they did in Tier 3. In Tier 3, teachers engaged almost twice as much in ongoing progress monitoring, six times more in skill/strategy review, and almost one third more time not engaged in instruction than in Tier 2.

Interview Results

The interview data were coded to identify patterns that aligned with the purposes of the study and served to support or negate the observational data. The data were grouped into two broad categories (i.e., Role of the Special Educator and Special Education Instruction), which were further divided into subcategories that emerged from the interview data. The Role of the

Special Educator category included the following subcategories: (a) Collaboration, (b) Evidence-Based Practices, (c) Eligibility Assessments, and (d) Paperwork. The Special Education Instruction category was divided into two subcategories, Instructional Strengths and Differences in Instruction in the Advanced Tiers. A report of the findings will include a narrative description of the interview data as they pertain to each category and subcategory. A detailed report of each of the teacher participant's responses is included in Appendix E.

Role of the Special Educator

Collaboration. All the teacher participants reported the following as ways in which they collaborate with general educators in their building: (a) participating in grade-level team meetings; (b) emailing; and (c) engaging in informal communication (i.e., discussions while passing in the hall, lunch room conversation). Only two of the seven teachers referred to co-teaching with general educators as a way that they engage in collaboration. These teachers reported their role during co-teaching to be one of support to the general educator during whole-group instruction. During small-group instruction, teachers in this study would take students with IEPs to a different location and conduct instruction. When asked if they felt accepted by general educators, teachers responded favorably that, in fact, they felt a part of the team. However, one teacher felt the opposite; she stated "… they are wonderful teachers, but I see that line in the sand and I said 'Ok' and came back to my side. I am still waiting, kind of standing there … but at this point, it is definitely, it is two different things (i.e., special education and general education). It is two different islands." Responses regarding collaboration from all teacher participants corroborate findings from researcher observations.

Evidence-based interventions. When asked about their knowledge and use of evidence-based interventions, most teachers responded with the following: (a) stating their use of

data to make instructional decisions, (b) commenting on their role in ongoing progress monitoring and data sharing, and (c) identifying a list of interventions they have implemented with students. All teachers reported that school-wide use of computer-based data tracking systems such as Dynamic Indicators of Basic Early Literacy Skills (DIEBELS) (Good & Kaminski, 2002) and AIMSweb (AIMSweb, 2010) helped not only in keeping track of data but with instructional decision making. A few teachers reported that they kept large notebooks of student data or in one case a Wiki page was used to share data school wide.

Another factor that most teachers commented on was the fact that the school district had adopted a treatment protocol that included a prescriptive list of interventions to be used and when they are needed. One teacher stated, "We have that list of interventions (district mandated), and then I typically look at where the student's needs are … Our building is unique in that we have Corrective Reading that was just a program that we really thought we needed because we were having so many older non-readers who didn't have the basic phonics …" However, one teacher who did not have access to evidence-based interventions, and thus was not observed using any evidence-based interventions.

No discrepancies were found between what the researcher observed and what the teachers reported during interviews about their knowledge and use of evidence-based interventions.

Eligibility assessments. As reported earlier, a significant variance was found among teachers in the proportion of time spent in the *Diagnostician* role component. Two of the teacher participants were not observed in that role, and the majority were observed less than 20% of the time engaged in tasks within the *Diagnostician* role component.

During interviews, the teachers were asked questions about their knowledge and implementation of assessments. Their responses to these questions can be divided into two

categories: Those who conducted formal special education eligibility assessments and those who did not. Three teachers reported using achievement and IQ tests for special education eligibility, and of those teachers only one actually conducted those assessments. The school psychologist was the person who conducted the assessments in the other two cases. The remaining four teachers reported only the use of curriculum-based measures for special education eligibility. One teacher stated, "I have heard of it, but I have never actually seen one …" when asked about conducting achievement tests such as the Woodcock Johnson III for special education eligibility.

Interview data pertaining to the *Diagnostician* role component was important for understanding observational outcomes for this component because of the low likelihood of the researcher observing tasks within this component during the limited amount of time spent on observations.

Paperwork. Teachers reported that between a quarter to half of their day was spent engaged in tasks involving paperwork. This supports findings from the Role Observation Instrument. Furthermore, teachers suggested that the proportion of time spent in tasks involving paperwork would be higher if they did not take work home with them to complete at night. One teacher stated, "I think the paperwork … that is huge … being the only [special education] teacher in the building … my situation (i.e., one person to complete all required paperwork) is a lot of missed instruction time … a lot."

Special Education Instruction

Instructional strengths. During the post-observation interview, each teacher was asked, "What do you feel are your instructional strengths?" This question was posed in order to check discrepancies between what the teachers in the study *said* in interviews and what they actually

did during observations. Only the answers of two teachers included actual instructional practices even when redirected and prompted by the researcher. This is illustrated in the exchange below:

Researcher: What do you feel are your instructional strengths? For example, modeling, questioning, giving feedback…

Teacher: I don't think I am really strong at anything (laughs) … this is difficult to …

Researcher: Well, how about if you could pick one that you do a lot …

Teacher: Organized and being focused?

Researcher: Being focused? (Clarifying question)

Teacher: Yes, really trying to narrow where we are going with it (instruction) … and trying to organize the way to get there (achievement) ... and try to work more preventive …

Other teachers simply listed their positive attributes (i.e., caring, make students feel safe) when asked about instructional practices. Of equal interest, both teachers who responded to this question with an actual instructional practice mentioned giving feedback. Both teachers commented on how they were trying to improve the quality of their feedback from simple feedback such as "good job" to more specific feedback for each student.

Difference in instruction in advanced tiers. During the post-observation interview, every teacher was also asked, "How does instruction differ in Tier 2 and Tier 3?" Four of the seven teachers referred to the amount of instructional time the students received as a way to differentiate instruction. For example, one teacher responded "… Tier 2 is strategic intervention and that is 30 extra minutes and tier 3 is intensive so that is 60 extra minutes … so it [Tier 3] is kind of an extension of that first 30 minutes [tier 2] …" One teacher suggested that the only difference between Tier 2 and Tier 3 instruction was more progress monitoring was done in Tier

3. Another stated that she "… doesn't look at it according to tiers but tries to get a sense of what each student's needs are …" Yet another teacher responded that she was confused about Tier 3, "Tier 3 to me, constantly changes," confiding that the distinction between Tier 2 and Tier 3 was hard for her to understand.

CHAPTER V

DISCUSSION

The purpose of this study was to examine the role of the special educator within a response-to-intervention (RTI) framework and to examine what instructional behaviors special educators evidence most frequently in the advanced RTI tiers. Specifically, these two issues were investigated with regard to: (a) proportion of the special educator's time spent in the four key roles as defined by the literature (i.e. collaborator, interventionist, diagnostician, manager) (measured with the Role Observation Instrument); (b) within each key role, in what behaviors do special educators evidence most frequently (measured with the Role Observation Instrument); (c) instructional practices that are used most frequently by the special educator (measured with the Instruction Observation Instrument); and (d) instructional practices used by special educators aligned with effective instructional practices that have been identified in the empirical literature (measured with the Instruction Observation Instrument).

Conclusions

The results of this study show that special educators working within schools that are implementing an RTI model are being utilized in various roles and behavioral tasks that are in alignment with what the literature says about the role of the special educator in an RTI model. Several conclusions can be drawn from the results of this study. First, special educators were found to spend over a third of their total time engaged in managerial tasks such as paperwork and emails. Of their time spent in managerial tasks 55% of time was spent completing paperwork which amounts to about 17% of their total time spent as special educators. This is equal to about one day per week spent completing paperwork. This was not surprising. Special educators are known to have a substantial amount of responsibilities that include a large "paperwork"

component (Mainzer, Deshler, Coleman, Kozleski, & Rodriguez-Walling, 2003; Wasburn-Moses, 2005; Werts, Lambert, & Carpenter, 2009).

Second, special educators spent about a fourth of their time in the role of Collaborator but the specific tasks they engaged in that constituted collaboration varied. Three of the seven teachers spent a proportion of their time in the general education classroom while the remaining four teachers were not observed in the general education classroom at all. The teachers who collaborated with general educators shared responsibility with general educators in each tier of instruction within RTI. The four teachers who did not collaborate with general educators saw their role as only providing services in Tier 3 where collaboration was required with students, parents, paraprofessional and related service providers. Additionally, collaboration with paraprofessionals constituted a significant proportion of time spent in the Collaborator role by all but one of the teachers in this study. Teachers were responsible for the management and scheduling of as few as two paraprofessionals to as many as eight. All teachers reported that this was a daily struggle and constituted a significant proportion of their time.

Third, in as much as the special educators in this study were working within RTI models, the way in which students with disabilities were identified differed from traditional methods. Four of the seven teachers did administer achievement or IQ tests to make special education eligibility decisions but instead they were responsible for gathering and analyzing curriculum based measures to identify students with needs. Two of the three teachers that were still using achievement and IQ tests, expressed that the longer their school implemented RTI and the more experienced they became with curriculum based measures the less their role would require them to use the traditional methods of identification.

Fourth, one quarter of the special educators' time was spent engaged in tasks related to instruction. Out of that fourth, three fourths of the instructional time was spent engaging in instructional practices which produced the greatest effects (Hattie, 2009). This means that only 19% of their total role was spent in instructional practices that previous research has shown to yield the greatest effects. Again this is equivalent to approximately one day per week being devoted to effective instructional practices.

Finally, instruction in Tiers 2 and 3 were found to be generally the same with the exception of the occurrence of the special educator engaged in physical observation substantially more in Tier 2 than Tier 3. This occurrence can be explained by the fact that those teachers who were engaged in Tier 2 instruction were being used in the general education classroom by the general educator to conduct physical observation of students during the general educators' delivery of instruction.

Limitations

Several limitations and concerns apply to this study. First, the number of participants and minutes of observation was limited. Although there were 7622 minutes of observation conducted during this study, this study was restricted by the number of participants and observation hours.

Additionally, the participants were all situated in schools which were nominated as being exemplary in their implementation of RTI. All seven teacher participants taught in the state of Kansas and had received not only high quality professional development to help them implement RTI at their school but they each received one-on-one peer coaching from a RTI specialist from the state of Kansas to support them in performing their role within an RTI framework.

Future Research

To address the limitations above, future observational studies must be conducted over longer periods of time at different points during the school year and must include larger numbers of participants with a variety of experience and skill sets. Additionally, similar data need to be collected in middle and high school settings. Teachers to be included in future studies should be those who are both experts at RTI implementation and those who are struggling with implementation. Furthermore, the variety of teacher participants would be larger if teachers were selected who were teaching in different states that are implementing RTI differently than it is being implemented in the state of Kansas. Selecting teachers from different states would give researchers insight on not only the role of the special educator but how that role is impacted by state and district mandates and support pertaining to RTI implementation.

To aid in the understanding of the role of the special educator regardless of the presence of an RTI model, research must seek to compare and contrast both special educators who are and those who are not functioning within an RTI model. This research could then be used to explain aspects of the special educators' roles which are specific to RTI implementation and those aspects that are specific to the role of the special educator in general.

Additionally, future research should focus on linking student achievement to the teacher participants' instructional practices. Researchers should create measures of student achievement so as to take into account and analyze existing measures of student achievement. Research focused on connecting individual teacher instructional practices with student achievement and more specifically connecting instructional practices that take place in the advanced tiers of RTI with student achievement would be essential information for guiding the future refinement and

evolution of the role and instructional practices of special educators functioning within an RTI system.

Implications for Education

In order for the results of this study to effectively be put into practice, four issues need to be considered: (a) ensuring that there are clear role definitions for all stakeholders when implementing an RTI school reform model; (b) preparing future special educators to be effective time managers; (c) preparing future special educators to be effective managers of paraprofessionals; and (d) defining, modeling, and providing practice and feedback opportunities on high effect size instructional variables.

Because RTI, when implemented as a school reform model, requires participation by all stakeholders (i.e., general educators, special educators, principals, district administrators), it is imperative that all roles and responsibilities be clearly defined and communicated. Both general educators and special educators possess certain knowledge and skills that the other does not and their specific role within RTI should reflect their expertise. Principals and district administrators are integral to ensuring that each teacher is functioning in an effective and efficient manner that compliments the RTI model that is being implemented. Finally, special educators' roles will change with RTI implementation (e.g., special educators' use of curriculum based measures for special education eligibility determination) and ensuring that all stakeholders understand these changes and responds to them in a sufficient manner is crucial.

The results from this study suggest that there are several areas of focus for future special educators. One such area is related to the management and scheduling of paraprofessionals. This issue needs to be addressed by pre-service educators so that future special educators are aware of this job responsibility and have adequate skills and strategies so that they are effective managers

of paraprofessionals. Additionally, pre-service educators should address time management skills with future special educators. The results from this study show that special educators are required to perform a variety of tasks in a variety of different settings. Without the skills to manage time effectively special educators will not be able to function in the various roles required of them. Furthermore, effective time management could help address the issue of limited time (19%) spent in instruction with greatest effects evidenced by teachers in this study.

Finally, the interview data and observational data from this study showed that special educators are not certain what instruction should consist of in Tier 2 and Tier 3 of RTI. During interviews with the teacher participants several teachers suggested that they were confused on the differences between instruction in Tier 2 and Tier 3. Observations confirmed that there were very little difference in instructional practices implemented during Tier 2 and Tier 3. Distinctions between instruction in Tier 2 and Tier 3 should be clearly defined. Special educators that are currently implementing RTI would benefit from these distinctions. At the same time future special educators would benefit if they are informed about RTI not only about instruction in the advanced tiers but about the construct of RTI as a school reform model.

Summary

In summary, this study was able to show what the role of the special educator consists of in a small portion of special educators who are working within schools implementing an RTI model. Role component observational data showed that special educators are required to perform a wide array of tasks in various setting in collaboration with multiple professionals, students and parents. Instruction observational data showed that special educators are using their limited amount of instructional time in practices which produce the greatest effects, but there was little differences noted between instructional practices in the advanced tiers of instruction. Future

research needs to focus on connecting instructional practices with student achievement and distinction of what instructional practices should be included in each advanced tier of RTI.

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Appendix A

Initial Contact/Criteria Determination

Initial Contact/Criteria Determination

Person Contacted_____ Position_____
District_____ School_____
Phone #_____ Email_____
Date_____ Contacted by_____

"I am a researcher at University of Kansas Center for Research on Learning or KU-CRL. We are currently partnering with the Kansas State Department and investigating implementation of MTSS. We are looking specifically at the role of the special educator and what they are doing to promote the successful implementation of MTSS. Our research will be conducted by observation and interviews. A researcher (who is a seasoned teacher) would "follow" a special education teacher, in a school that is implementing MTSS, throughout the day for three consecutive days. While doing so the researcher would take notes on what the special education teacher is doing (e.g., collaborating, supporting classroom teachers, providing intensive instruction, etc.). The observations would be very unobtrusive and would not interrupt any instructional or work activities. At the end of the 3rd day, the researcher would meet with the teacher for about 30 min to ask some questions about her work and share with her what she observed to get feedback from the teacher as to whether she (the researcher) "got her observations right." At the conclusion of this study the KU-CRL will share results with the special education teacher, principals and school districts."
"We have heard from Colleen Riley and Susan Sipe from the KSDE that your school/district was one implementing MTSS and we would like to learn more about what you are doing. Is this correct? Are you implementing MTSS?" _____

Which of the following components of implementation are in your school/district?

School-wide screening for academic concerns?	Yes	No
School-wide screening for behavioral concerns?	Yes	No
Tiered Academic interventions for identified at-risk students?	Yes	No
Tiered behavioral interventions for identified at-risk students?	Yes	No
Progress monitoring? (content areas)_____	Yes	No
Checks for intervention integrity	Yes	No

How long has your school/district been using MTSS? _____

"Thank you for your time and thorough responses. We are very interested in working with you and your school. My next contact could take up to 30 minutes, would you mind if I contact you or (SPED teacher) again?" _____ Dates & Times_____

Follow-Up Recommendation:	Comments:
Site is beginning to implement MTSS _____ out of 6	
Site is somewhat implementing MTSS _____ out of 6	
Site is fully implementing MTSS _____ out of 6	

Kansas state department of Education

Special Education Services

785-291-3097 or 1-800-203-9462
785-296-6715 (fax)
120 SE 10th Avenue • Topeka, KS 66612-1182 • 785-296-8583 (TTY) • www.ksde.org

January 16, 2011

Dear Principal:

I appreciate the efforts that you and your staff have been making in the implementation of MTSS. Without a doubt, your strong leadership has been one of the critical factors accounting for the successes that have emerged in your school. As you know, all of us at KSDE are eager to do all that we can to support schools in their implementation of MTSS. To that end, we're always seeking to better understand how we can support schools in this important work. I'm writing to you to see if you'd be willing to assist us in trying to answer a very important question about successful MTSS implementation: ***What specific things are special education teachers doing to promote the successful implementation of MTSS?*** (this is an important question for us to answer because we know that for MTSS to be successful, we need to optimally tap the unique expertise and talents that special education teachers have).

To answer this, we're teaming with some colleagues at the University of Kansas Center for Research on Learning (KU-CRL) to gather some information from a select number of schools in our state. Here's a short summary:

WHAT WOULD HAPPEN

1. A researcher from the KU-CRL (Belinda Mitchell, who is a seasoned teacher) would "follow" your special education teacher throughout the day for three consecutive days. While doing so she would take notes on what the special education teacher is doing (e.g., collaborating, supporting classroom teachers, providing intensive instruction, etc.). She would be very unobtrusive and would not interrupt any instructional or work activities.
2. At the end of the 3rd day, the researcher would meet with the teacher for about 30 min to ask some questions about her work and share with her what she observed to get feedback from the teacher as to whether she (the researcher) "got her observations right."
3. That's it!

WHAT WE'D PROVIDE TO YOU

1. After the data are analyzed, the KU-CRL staff will return to your school to share with you and the special education teacher what we learned in your school and the others that we visited and answer any questions you might have.
2. For helping us answer this important question, the KU-CRL has a small grant that will enable them to compensate your special education teacher $250.

I know how very busy you and your staff are. With that in mind, we've planned this work so that we will be very discreet and student learning will not be interrupted.

Please contact Belinda Mitchell at bbmitchl@ku.edu or 1.785.856.3045 to learn more about this opportunity. I hope that you would be willing to join with us in answering this important question. The information that we gather will be able to help us refine how we implement MTSS even more successfully. Thanks so very much.

Sincerely,

Colleen Riley
Director of Special Education

Appendix B

Principal Pre-Observation Protocol

Principal Pre-Observation Protocol

" I have contacted you because your school was recommended by the KSDE because they felt that great things were happening with your school's implementation of RTI…as you know RTI is gaining momentum across the country and Kansas has been a leader with their MTSS model…I would like to ask you a few questions regarding your school's implementation of MTSS…is that ok?

RTI~ Overview/Planning

1. Briefly tell me what tiered interventions looks like at your school?
2. What percentage of your special educator(s) time would you say they spend in Tier 1? Tier 2? Tier 3? Can you briefly tell me what they do in each tier…generally?
3. What planning steps or strategies were taken to prepare the school personnel for RTI (e.g. awareness training, development of a shared vision, defined roles and responsibilities)? What about preparing school structure (e.g. data systems, physical layout, scheduling, financial systems)?

RTI~ Implementation

4. How has your school fit tiered levels of instruction into the school day?
5. Does your school have a RTI leadership team? Who are the members of the team and how does the team function?

RTI~ Evaluation

6. How is the effectiveness of interventions and fidelity of implementation of those interventions evaluated?
7. How is the effectiveness of overall RTI implementation evaluated? How do you know if it is working?
8. Is there anything else that you would like to tell me about RTI/MTSS at your school?

- Member Check
- Collect any documents mentioned…

Appendix C

Teacher Pre-Observation Protocol

Teacher Pre-Observation Protocol

" I have contacted you because your school was recommended by the KSDE because they felt that great things were happening with your school's implementation of RTI…as you know RTI is gaining momentum across the country and Kansas has been a leader with their MTSS model…I would like to ask you a few questions regarding your school's implementation of MTSS…is that ok?

RTI~ Overview/Planning

1. Briefly tell me what tiered interventions looks like at your school?
2. What percentage of your time do you spend in Tier 1? Tier 2? Tier 3?
3. What planning steps or strategies were taken to prepare the school personnel for RTI (e.g. awareness training, development of a shared vision, defined roles and responsibilities)? What about preparing school structure (e.g. data systems, physical layout, scheduling, financial systems)?

RTI~ Implementation

4. How has your school fit tiered levels of instruction into the school day?
5. Does your school have a RTI leadership team? Are you a member of the leadership team? If so tell me about your role in that team, If no, tell me what you know about how the team functions

RTI~ Evaluation

6. How is the effectiveness of interventions and fidelity of implementation of those interventions evaluated?
7. How is the effectiveness of overall RTI implementation evaluated? How do you know if it is working?
8. Is there anything else that you would like to tell me about RTI/MTSS at your school?

- Member Check
- Collect any documents mentioned…

Appendix D

Role Observation Instrument

Scoring Protocol & Decision Criteria

Special Educator Role Observation Instrument

Belinda B Mitchell
2010

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Directions: *At the end of 30 seconds the scorer will decide which role and task within that role the special educator is engaged and make one mark on the instrument.*

Collaborator

Planning with General Education Teachers

Planning Content/Lesson~ This box with be marked if the teacher is engaged in collaboration with the GE teacher where they are planning what they will be teaching. For example, they could be discussing specific lesson plans, items to include in a lecture or what material they need to cover that will be state standard requirements. This collaboration could take place formally (meeting) and/or informally (brief conversation or email).

Planning Universal Screening/Progress Monitoring~ This box will be marked if the teacher is engaged in collaboration with the GE teacher where they are planning either initial assessment or assessment used to monitor students' progress.

Planning Method of Instruction (how to teach)~ This box will be marked if the teacher is engaged in collaboration with the GE teacher where they are discussing the method of instruction. For example, the teachers could be discussing if they should use technology, small group instruction, lecture etc. to effectively deliver content to the students

Consulting with General Education Teachers

Providing support to GE teachers/pedagogy~ This box with be marked if the teacher is engaged in collaboration with the GE teacher where they discussing methods of instruction and the special education teacher is giving the general educators ideas and using her expertise to help the general educator decide how instruction should take place.

Providing support to GE teachers/characteristics of SPED students~ This box will be marked if the teacher is engaged in collaboration with the GE teacher where the special educator is explaining characteristics of disability or students with disabilities in order to help the general educator understand and help the general educator be able to provide supports to the student.

Providing support to the GE teacher/SPED process~ This box will be marked if the teacher is engaged in collaboration with the GE teacher where they are discussing the special education identification/eligibility process.

Providing support to GE teachers/IEP accommodations/modifications~ This box will be marked if the teacher is engaged in collaboration with the GE teacher and they are discussing the IEP and more specifically accommodations/modifications and how they are to be implemented and supported in the general education classroom.

Providing support to GE teachers/assessment~ This box will be marked if the teacher is engaged in collaboration with the GE teacher and they are discussing assessments. For example, the GE teacher may be asking the special educator for advice on which assessment to give or they could be asking the special educator to explain the results of an assessment

Teaching with General Education Teachers

Co-teaching/team teaching~ This box with be marked if the teacher is engaged in collaboration with the GE teacher where they are teaching together. For example, the general educator and the special educator are both providing direct instruction in the general education classroom to the same group of students

Progress monitoring~ This box will be marked if the teacher is engaged in collaboration with the GE teacher where the special educator is either taking the lead and progress monitoring the same students as the general educator or the special educator could be assisting the general educator in the progress monitoring process.

Assisting in the classroom~ This box will be marked if the teacher is engaged in collaboration with the GE teacher where the special educator is in the general education classroom but they are not engaged in instruction equally with the general educator but they are simply being utilized in the assistant capacity.

Instructional Coaching (Professional Development Support)

Peer coaching~ This box will be marked if the teacher is engaged in collaboration with the GE teacher where the special educator is "coaching" the general educator. For example, the special educator could be trouble shooting, brainstorming or modeling various instructional techniques, and/or interventions.

Providing performance feedback~ This box will be marked if the teacher is engaged in providing feedback to another educator about instructional methods, accommodation/modification implementation or any item previously discussed in the peer coaching relationship.

Supervising Paraprofessionals

Consulting with paraprofessional about a student~ This box will be marked if the teacher is engaged in collaboration with the paraprofessional and they are discussing a particular student and the student's educational needs.

Scheduling and managing paraprofessionals~ This box will be marked if the teacher is engaged in collaboration with the paraprofessional and they are discussing scheduling. This box will also be marked if the teacher is engaged in a task related to management of paraprofessional (scheduling, conflict resolution, team meeting)

Consulting with students, parents, school and community

Communicating with parents/IEP~ This box will be marked if the teacher is engaged in collaboration with parents and they are discussing their child's IEP. This can be related to planning and or implementation of the IEP.

Consulting with students/IEP~ This box will be marked if the teacher is engaged in collaboration with students and they are discussing their IEP or the teacher and student could be working on skills (social, organizational) related to IEP goals.

Assisting students with accommodations/modifications~ This box will be marked if the teacher is engaged in collaboration with the student regarding the accommodations/modifications provided to them on the IEP. For example, the teacher could be modifying a test for the student by reading it aloud or limiting the number of answer choices.

Interventionist

Using evidence-based interventions/instruction~ This box will be marked if the teacher is engaged in instruction where they are using an evidence-based intervention such as Corrective Reading, Envision math, Read Naturally and Voyager.

Assisting students with goal setting~ This box will be marked if the teacher is engaged in instruction and they are asking they students to set goals, planning goals, and/or monitoring progress of goal completion.

Doing on-going progress monitoring~ This box will be marked if the teacher is engaged in instruction and they are implementing an on-going progress monitoring measure with students such as one minute fluency probes.

Implementing Intervention/instruction

Providing high quality core content area instruction~ This box will be marked if the teacher is engaged in instruction where they delivering core content area (reading, math, science, social studies) instruction to all students in a general education setting.

Providing targeted supplemental instruction~ This box will be marked if the teacher is engaged in instruction where they are providing extension to subject matter already taught in the general education setting.

Providing intensive instruction/strategies~ This box will be marked if the teacher is engaged in instruction where they are teaching students strategies to help them succeed in the general education setting and/or where they are teaching basic skills to students who never mastered these skills in the general education setting.

Providing social skills instruction~ This box will be marked if the teacher is engaged in instruction where they are teaching students social skills.

Providing self-management skills instruction~ This box will be marked if the teacher is engaged in instruction and they are teaching self-management skills to students.

Providing vocational skills instruction~ This box will be marked if the teacher is engaged in instruction and they are teaching vocational skills to students.

Participating in Professional Development

Learning an intervention~ This box will be marked if the teacher is engaged in a professional development session where they are learning to implement a evidence-based intervention and/or any method of instruction.

Diagnostician

Identifying and Implementing Assessment

Implementing basic skill assessment~ This box will be marked if the teacher is engaged in implementing a basic skills assessment.

Implementing functional skill assessment~ This box will be marked if the teacher is engaged in implementing a functional skill assessment.

Implementing special education eligibility assessment~ This box will be marked if the teacher is engaged in implementing assessments used for special education eligibility determination.

Interpreting Assessment Results

Identifying proper level of intervention placement with RTI team~ This box will be marked if the teacher is engaged in decision making process with an RTI leadership team where they are making decisions about which tier of intervention is appropriate for which students based on results of assessments.

Identifying special education placement with IEP team~ This box will be marked if the teacher is engaged in the decision making process with an IEP team where decisions are being made about whether or not a student qualifies for special education services based on results of assessments.

Identifying proper accommodations/modifications with IEP team~ This box will be marked if the teacher is engaged in the decision making process with an IEP team where decisions are being made about what accommodations/modifications would be appropriate to include in a student's IEP based on data.

Explaining Assessment Results to Others

Explaining/discussing assessment results in RTI team meeting~ This box will be marked if the teacher is engaged in tasks where they are explaining and/or discussing assessment results in an RTI meeting. For example, the special educator may be explaining an assessment result in order to determine if instruction is effective in an advanced tier.

Explaining/discussing assessment results in IEP meeting~ This box will be marked if the teacher is engaged in tasks where they are explaining/discussing assessments results in an IEP meeting in order to identify appropriate services for a student with disabilities

.

Participating in Professional Development

Learning basic skill assessment~ This box will be marked if the teacher is engaged in tasks where they are participating in a professional development where they are learning how to implement a basic skill assessment.

Manager

Doing paper work~ This box will be marked if the teacher is engaged in tasks where they are completing paperwork. For example, these tasks could be related to IEPs, progress reports, or lesson planning.

Doing email~ This box will be marked if the teacher is engaged in tasks which include answering or composing email messages.

Conducting meetings/administrative duties~ This box will be marked if the teacher is engaged in tasks where they are conducting and/or participating in meetings. This box will also be marked if the special educator is engaged in tasks assigned to them by an administrator such as car duty, bus duty or lunch duty.

Attending to physical needs of student~ This box will be marked if the teacher is engaged in tasks where they are helping a student with various physical needs such as toileting, eating, and clothing.

Attending to teacher personal needs~ This box will be marked if the teacher takes a bathroom break or any other break intended for personal needs.

Providing student transport~ This box will be marked if the teacher is assisting students by walking them to/from the general education classroom and to/from the special education resource room.

Assisting with related service providers~ This box will be marked if the teacher is engaged in tasks where they are providing instruction/skills extension activities that are normally provided by related service providers. For example, tasks included here could be jumping on trampoline, rolling on large ball, practicing anger management, and/or practicing "time out" routines.

Engaging in off-task behaviors~ This box will be marked if the teacher is engaged in tasks where they are not fulfilling requirements of their job as a special educator. Tasks in this category could include talking on the phone, having personal conversations, surfing the web etc.

Gathering materials~ This box will be marked if the teacher is engaged in tasks where they are gathering materials for instruction. Tasks in this category could include looking through a file cabinet, organizing instructional manuals, making sure there are paper and pencils available etc..

Interventionist	Task Code
Uses evidenced-based interventions/instruction	I-1
Assist students with goal setting	I-2
On-going progress monitoring	I-3
Implement Intervention/Instruction	
High quality core content area instruction	I-4
Targeted supplemental instruction/small group/re-teaching	I-5
Intensive instruction/strategies	I-6
Implement Socio-emotional and Behavioral Supports	
Social Skills Instruction	I-7
Self-management skills Instruction	I-8
Vocational Skills Instruction	I-9
Professional Development	
Learn reading intervention	I-10

Diagnostician	Task Code
Identify and Implement assessment	
Implement Basic Skills Assessment	D-1
Implement Functional Skills Assessment	D-2
Implement SPED eligibility assessments	D-3
Interpret Assessment Results	
Identify proper level of intervention placement with team	D-4
Identify SPED placement with team	D-5
Identify proper accommodations/modifications with team	D-6
Explain Assessment results to Others	
Explain/discuss assessment results in RTI team meeting	D-7
Explain/discuss assessment results in IEP meeting	D-8
Professional Development	
Learn Basic Skill Assessment	D-9
Learn Functional Skill Assessment	D-10

Collaborator	Task Code
Planning with GE Teachers	
Plan content/lesson (what to teach)	C-1
Plan Universal Screening/Progress Monitoring	C-2
Plan method of instruction (how to teach)	C-3
Consult with GE Teachers	
Provide support to GE teachers /pedagogy	C-4
Provide support to GE teachers/characteristics of SPED students	C-5
Provide support to GE teachers/SPED process	C-6
Provide support to GE teachers/IEP Accommodations & Modifications	C-7
Provide support to GE teachers/Assessment	C-8
Teaching with GE Teachers	
Co-Teaching/Team teaching	C-9
Progress Monitoring	C-10
Assisting in Classroom	C-11
Instructional Coaching (PD support)	
Peer Coaching	C-12
Performance Feedback	C-13
Supervision of Paraprofessionals	
Consult with para about student	C-14
Schedule Para/Manage Para	C-15
Student, Parent, School & Community	
Communicate with parents/IEP	C-16
Consult with students/IEP	C-17
Assist students with Accommodations/Modifications	C-18
Consult with student/ behavior management	C-19
Consult with related service providers	C-20

Manager	Task Code
Paperwork	M-1
Email	M-2
Meeting/Administrative	M-3
Attend to Physical needs of student	M-4
Attend to own personal needs	M-5
Student Transport	M-6
Assist with related service providers	M-7
Talking/Off-task	M-8
Gathering materials	M-9

Task Number	Start Time	Stop Time	Total Time	Tier	IEP	Task Code	Description
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
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14							
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19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Teacher_____
Date_____
Researcher _____

Total Time Observed_____
Total Time Recorded_____
Missing +/- _____

Appendix E

Instruction Observation Instrument

Teacher: _____ **Subject:** _____ **Date:** _____ Task Number_____

Directions: After the teacher begins the class, begin your timer. After 30 seconds have passed, you should make your first observation on the horizontal line. Your observation should be complete within 30 seconds. Then, wait to begin the next observation when the timer reaches 0. There are three categories of observation variables listed along the top row of this matrix (1-Learning Arrangement, 2-Transition Time, and 3-Instructional Activity). Note, each category of variables is shown in a different color. At each observation interval, one mark should be made in each category so that every row contains 3 marks. Mark 1 in only one of the Learning Arrangement boxes. If the class is transitioning between activities mark 1, if they are not mark 0. Mark 1 in only one of the Instructional Activity boxes. Finally, **only mark the first instructional activity observed at the beginning of the observation interval.**

	1 LEARNING ARRANGEMENT					2	3 INSTRUCTIONAL ACTIVITY																								
	Large Group *Greater than 9 students*	**Small Group** *3 to 9 students*	**Individual-Teacher Led**	**Student Peer Pairs**	**Individual-Independent**	**Transition Time**	**Lecture** *Giving Content Information*	**Describe Skill/Strategy** *"To write ...(name steps)"*	**Modeling**	**Implicit Modeling** *Demonstrate Only*	**Explicit Modeling** *Demonstrate AND Explain*	**Give Directions**	**Monitoring & Questioning**	**Physical Observation** *(e.g., watching students)*	**Questioning**	**Listening** *(Full 10-seconds)*	**Review**	**Fact/Concept/Procedure** *Recall Facts/Concepts*	**Manipulate / Generalize** *Use recently learned skill*	**Skill or Strategy**	**Feedback**	**Simple Feedback** *Task performed correct*	**Elaborated Feedback** *Specific Info. / Re-Teaching*	**Graphic Devices and Organizers**	**Reading**	**Read Aloud** *(Teacher or Students)*	**Silent Reading**	**Formal Assessment**	**Test**	**Quiz**	**Formative Progress Monitoring**	**Media**	**Not Engaged in Instruction**	**Due to Student Interruption**	**Due to Adult Interruption**	**Teacher Disengaged**
1																																			
2																																			
3																																			
4																																			
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SCORING PROTOCOL
&
DECISION CRITERIA

Classroom Observation Instrument

Version 1.3

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Learning Arrangement

Directions: *At the beginning of each time interval, please score one of the following learning arrangements. Mark "1" in the box that best describes the learning arrangement of the students. If there is more than one type of learning arrangement in the classroom, only score the learning arrangement that the teacher is instructing or monitoring. For example, if a large group of students is working independently while the teacher provides additional instruction for a small group of students you should score the learning arrangement as "Small Group." The focus is on the teacher's behavior or activity.*

Large Group

Large Group will be checked when most of the students in the classroom are provided the same instruction simultaneously. Large group ranges in size but is always greater than 9 students.

Small Group

Small Group will be checked whenever the students have been assigned to work in small groups. Small groups range in size from 3 to 9 students. For example, students might be doing a cooperative learning activity or engaged in small group reading instruction.

Individual Student-Teacher Led

Individual Student-Teacher Led will be checked whenever the students are working one-on-one with a teacher in a clinical manner. For example, the teacher may be doing "experimental teaching," direct phonics instruction, or monitoring reading errors.

Student Peer Pairs

Student Peer Pairs will be checked whenever the students are working in pairs and have been formally instructed to work in pairs. If the class contains an odd number of students, one group may contain 3 students and still be scored "Student Peer Pairs." For example, students might be doing a "Turn-to-Your-Neighbor" activity or a class-wide peer tutoring activity.

Individual-Independent Work

Individual-Independent Work will be checked whenever the students are working independently. Students may be working quietly at their desks on a worksheet or whispering to a peer, but they have been asked to work on their own.

Transition Time

Directions: *At the beginning of each time interval, score this box. If the class is transitioning between activities, mark "1" in the box. If the class is NOT transitioning between activities, mark "O" in the box. Note, if some students appear to be transitioning and others students are not transitioning score "1."*

TRANSITION TIME

Transition Time will be checked when the students are transitioning between classroom activities but not yet engaged in any learning activity. For example, if the bell rings to begin class and students are not seated yet. Or, if the teacher completes the lecture then asks students to begin working on their homework, the time between ending the lecture and when student beginning to work is transition time. Finally, if students quit working before the end of class, or have free time after completing an assignment, this is also transition time.

Instructional Activity

Directions: *At the beginning of each time interval, score one of the following instructional activities. Mark "1" in the box that best describes instructional activity. If more than one instructional activity is observed during the observation time period, only score the first instructional activity observed at the moment the observation interval begins.*

Lecture

Lecture will be checked when the teacher talks to students without any, or minimal, student participation. The teacher may use the chalkboard, maps, or an electronic media (*e.g.*, PowerPoint) while lecturing.

Describe Skill or Strategy

Describe Skill or Strategy will be checked for each interval the teacher is observed giving task explanations, explaining how to do something orally that requires several steps, or directing students to use a learning strategy. For example, "In order to write this paper, you will need to do the following four things…," "To complete this experiment, you will need to follow the five following procedures…," "This math algorithm has three parts…," "This strategy has five steps…". The steps or parts must be described. Also, for example, the teacher may ask a student to predict what will happen next, summarize plot developments thus far, infer the meaning of some words and give a rationale, or use a Content Enhancement Routine.

Modeling

Implicit Modeling

Implicit Modeling will be checked for each interval the teacher spends physically modeling how to do something. This refers to showing how to do an academic task that is to be copied or imitated by the student. For example, the teacher demonstrates how to solve a math problem. Please note, if the teacher physically demonstrates while also "thinking out loud" to verbalize the teacher's meta-cognition, then you should check "Explicit Modeling."

Explicit Modeling

Explicit Modeling will be checked for each interval the teacher spends physically modeling how to do something while verbally describing their thought process. This refers to showing how to do an academic task that is to be copied or imitated by the student WHILE verbally

modeling the thought process the teacher is using to complete the task. For example, the teacher demonstrates how to do a lab experiment while asking questions and answering the questions so that students understand the thought process of a scientist. Please note, if the teacher only physically demonstrates while stating each step, then you should check "Implicit Modeling." Also, if the teacher does not physically demonstrate the procedure, a mark would be placed in the "Describes a Skill or Strategy" column.

Give Directions

Give Directions will be checked for each interval the teacher spends orally giving simple instructional or procedural directions. This includes verbally directing, supervising, or managing classroom academic tasks or describing a grading rubric. For example, the teacher saying, "Turn to chapter 9 in your book," or "Please do the first 10 math problems on the worksheet." This also includes verbally directing students' behavior, giving non-instructional directions to students (*e.g.*, "Please shut the window, Susan."), telling students how many points an assignment is worth, or expressing disapproval, dislike, dismay, dissatisfaction, or disgust with a student's class work, appearance, or behavior. For example, the teacher saying, "Jonathan, please take your seat," or "Allison, that is not what our bathroom pass procedure is; you need to…."

Monitoring and Questioning

Physical Observation

Physical Observation will be checked for each interval the target teacher spends doing physical observation of students in order to monitor students. Examples of physical observation for the purpose of monitoring are: The teacher walking around students' desk or visually observing students to determine if they have completed work or are successfully doing work. Please note, this activity should not be confused with giving feedback.

Questioning

Questioning will be checked when the teacher asks a question for self-answer, verbal response, written response, or action response. Self-questioning is one way of engaging the learner, but allows the learner not to self-disclose on a potentially sensitive subject (*e.g.*, no response is required from the student). For example, the teacher asked a question to the class as a whole and said, "I don't want a verbal answer or show of hands, but think to your self:

'How many of you ever thought you'd wished you could be more confident when talking to your peers at school?'" When questioning for a verbal answer, answers can be provided to a partner, generated by a team, individually, or as a choral response. When questioning for written answer, answers can be provided using response cards, response slates, by writing on the chalkboard, or writing on a sheet of paper. Finally, when questioning for an action response, responses can be provided using a physical movement by touching/pointing, acting out something, using gestures such as thumbs up, or giving facial expressions (smiley face/ sad face).

Listening

Listening will be checked when the teacher is attentively listening to a student's verbalizations for 10-seconds or longer. The teacher must exhibit at least one attentive behavior during the interval. Attentive behaviors include eye contact, "uh-uh" verbalizations, head nodding, and/or verbal listening cues (*e.g.,* "I understand," etc.).

Review

Facts/Concepts/Procedure

Facts/Concepts/Procedure will be checked when the teacher makes a statement or asks a question(s) that requires the student to show that the student remembers or understands the factual content or concept, or knows the steps/procedures for completing a task (e.g., solving a particular type of math problem or the steps for constructing a good outline). The information the teacher is soliciting must be previously learned facts, concepts, or procedures not the presentation of new information. For example, the teacher may ask the class to state the formula for calculating the area of a triangle.

Manipulate/Generalize

Manipulate/Generalize will be checked when the teacher makes a statement or asks a question(s) that requires the student to show that the student can generalize or apply a previously learned skill, or manipulate new information using a recently learned skill to new content, a novel situation, or a practical life situation. For example, if the class recently learned about osmosis and selective diffusion by experimenting with chicken eggs, the teacher may ask about how osmosis would occur in human cells.

Skill or Strategy

Skill or Strategy will be checked when the teacher makes a statement or asks a question(s) that requires the student to show that the student understands the underlying skills or strategies for effective/successful academic performance. For example, if students in astronomy are learning about the life cycle of stars, reviewing how to examine the textbook organization would be helpful to structuring student thinking and finding appropriate information in the text.

Feedback

Simple Feedback

Simple Feedback will be checked for each interval during which the teacher verbally tells a student or group of students whether their answer or performance is correct or incorrect. This includes summarizing information that students have said, but not elaborating. For example, when student gives the correct answer and the teacher simply acknowledges it but does not give more elaborate feedback. Please note, if the teacher provides elaborated feedback or asks follow-up questions as a means of giving elaborated feedback, this should be scored as "Elaborated Feedback on Learning."

Elaborated Feedback

Elaborated Feedback will be checked for each interval during which the teacher orally provides private or specific feedback to a student with regard to something the student has done. Teacher gives information on student performance when constructing meaning, or related to the processes underlying strategies or skills of completing, relating, or extending a skill or strategy. The feedback might include describing an error category or pattern of errors, explaining how to avoid the error, modeling a new way of performing the task, having the student practice a new way of performing the tasl, having the student paraphrase how to perform in the future, and having the student set one or more goals for the next performance. For example, if the student gives the correct answer to a math question but doesn't seem to understand how they reached the correct answer, the teacher provides elaborated feedback on the process used to reach the answer while checking for student understanding at different points in this re-teaching process.

Graphic Devices and Organizers

Graphic Devices and Organizers will be checked for each interval the teacher is presenting information about the lesson with the aid of a graphic device. Teacher uses a graphic device to enhance learning by transforming, repackaging, or manipulating the content. Some examples of graphic devices include Venn diagrams, content maps, or study guides. For example, the teacher might state, "Today we are going to be studying about the causes of the Civil War" then uses the Unit Organizer Routine to relate the new unit to the past and following units. Or the teacher might state, "We just learned about the various causes of the Civil War. Looking at our study guide, we can see that these causes were...." Or the teacher uses a Venn diagram, content map, or study guide to present information.

Reading Instruction

Read Aloud

Read Aloud will be checked when the teacher is verbally reading a passage where students are expected to "follow along" with or one student in the class is reading out loud while other students are expected to follow along in the text. After a period of time, another student begins reading aloud and the first student stops, this continues at the direction of the teacher.

Silent Reading

Silent Reading will be checked when the teacher instructs all students to read silently to themselves. The teacher may also instruct all students to find the answer to a question in the reading or to re-read the passage if finished early.

Formal Assessment of Learning

Test

Test will be checked when the teacher instructs students to complete a long assessment during the class period. The test is a long exam given to students for the purpose of assigning a grade/value to the student's performance.

Quiz

Quiz will be checked when the teacher instructs students to complete a short assessment during the class period. The quiz is a short exam given to students for the purpose of assigning a grade/value to the student's performance.

Formative Progress Monitoring

Formative Progress Monitoring will be checked when the teacher instructs students to complete a very short formative assessment. The results of the task are not assigned a grade/value but instead are used to inform the teacher about individual student's degree of mastery of a new body of knowledge or skill.

Video

Video will be checked when a film, video, or clip is shown in class as the primary means of instruction.

Not Engaged in Instruction

Due to Student Interruption

Due to student interruption will be checked for each interval during which the teacher spends correcting or listening to student misbehavior. This includes writing student hall pass and having students interrupt instruction to such a degree that teaching can no longer occur.

Due to Adult Interruption

Due to adult interruption will be checked for each interval during which the teacher spends speaking or listening to an adult in the classroom. This includes intercom announcements, being called to to the doorway to speak with an administrator, or having another teacher enter the room to speak with the regular teacher.

Teacher Disengagement

Teacher disengagement will be checked for each interval during which the teacher spends (a) grading papers, (b) passing out papers, (c) completing paperwork or computerized forms, (d) talking on phone for any purpose, (e) engaging in personal activities (*e.g.*, reading a newspa-

per, filing nails, etc.), (f) reading professional reading materials, (g) taking attendance, or (h) accessing, writing, or sending emails.

Appendix F

Teacher Post-Observation Protocol

And

Specific Teacher Quotes

Teacher Post-Observation Protocol

SPED~ Role in General

1. How many students do you have on your caseload?
2. How many students do you work with that have not been formally identified for services (eg. At-risk, non IEP)? What would you say is the percentage of time you spend with students on your caseload versus these students?
3. What percentage of your time as a Special Educator do you spend in the GE classroom? Resource/pullout?
4. What percentage of your time do you spend in tier 1? Tier2? Tier 3?
5. How does the way you conduct instruction differ in each tier?
6. What do you feel are your "instructional strengths" (eg. Feedback, questioning, describing etc)

SPED~ Collaborator

7. Explain how you collaborate with the GE teachers throughout the school year. Parents? Students?
8. Do you share your knowledge of strategies/interventions with other teachers in the building? If so how, how often and what areas (strategies, behavioral interventions etc)
9. Do you consult/coach GE teachers in their use of evidence-based interventions? Do you model lessons?

SPED~ Interventionist

10. Do you consider yourself the expert in your school when it comes to evidence-based interventions? If so, what makes you think that? If not, who is the expert?
11. Do other teachers and administrators use you as a resource for evidenced-based interventions?
12. How do you choose what intervention to use with your students?
13. After you have chosen what intervention to use with your students how do you determine if it is working? How do you "keep track" of this data and share it with others?
14. Of the evidenced-based interventions that you implement what percentage are reading? Behavioral? Organizational?

SPED~ Diagnostician

15. Are you the primary person in your building who administers SPED placement assessments? Universal screening assessments?
16. Whose responsibility is it to interpret the data from these assessments and make placement decisions?
17. How often do you find yourself having to explain assessment results to others? Explain.

Other & Closing

18. How much of your time is spent on paperwork, emails and other administrative type duties?
19. Does your principal give you additional administrative duties throughout the school year? Explain.
20. Is it your responsibility to manage paraprofessional? If so, how many paraprofessionals are you responsible for managing? How do you feel about this responsibility?
21. Are there other important aspects of your role that we have not talked about?

- Member Check
- Collect any documents mentioned…

Teacher 1-7 Specific Interview Quotes

Collaboration:

Teacher 1: Yeah, with Mrs. H (general educator), it started last year and they have a guided reading group…and she likes to teach them but it is a large group usually… and it is harder when you have a larger group and the kids are struggling a little bit more in reading…so she came up with the idea that I would go in with her (team-teaching)...and she actually sets up all of the lessons. She likes to deliver them. So she calls it team teaching but I don't necessarily think it is team teaching. She does all of the delivering. She sets up all of the lessons…and then when we are done, I take all of but one sped student…and I go out usually into the group room and we work on usually the same story. Sometimes the story might be a little bit lower. But it is like an article or something. And then we can take our time and we don't have to rush getting through it. We actually can cover the skills that she has just talked about because if they stayed in the classroom with me, it would be the peers that are a little bit higher, they wouldn't actually be able to go over those skills over and over again. So that is how that started. With Mrs. L, she was on maternity leave and Mrs. R was her substitute. And she came to me and said, "I don't know how to modify their spelling". I was showing her how and then we came up with the idea and I explained what I was doing with Mrs. H, and we came up with the idea that I would go in there and I would take my girls, which are three sped kids. And we could work on a book that is more at their level but we could work on all the skills that they do in the general ed classroom. And so that is how that worked out.

Researcher: So is there ever a time when you plan with a general ed teacher and you are actually part of the instruction within the general ed classroom?

Teacher 1: No, I can honestly say no.

Researcher: And those (teaching) relationships with Ms. H and Ms. L, were they things that just happened at the beginning of the school year? Or was it something assigned by the principal?

Teacher 1: No, they just happen at the beginning of the school year. Mrs. R being a substitute just was really open and relied on me. And I think that was the difference… this was all new to her... so it was easy to come and get help... and that was one of the things I could do, is I could help her. And with Mrs. H, she is an experienced seasoned teacher and she doesn't really need that assistance.

Researcher: So with, Ms. L being back now, do you think your role is going to continue in that classroom?

Teacher 1: No, I think it is actually not as essential as it was when Mrs. R was there. I mean Mrs. R literally had the schedule set up and I was there the 5 days a week. And now with Mrs. L, I am not as important. My role isn't as important. You know, I have just been doing this (being a special educator and team-teaching with general educators) and never really thought about it until this interview, and that is exactly what it is…It is their area (the general education

classroom). Yeah, and they are wonderful teachers but I see that line in the sand and I said, "Ok" and came back to my side. I am still waiting, kind of standing there. But at this point, it is definitely, it is two different things. It is two different islands.

Teacher 2: I go to their PLC meetings (general educators). We have 3rd grade today. So I am reviewing their formative math and reading scores that they just took.

Researcher: So you go to every single grades?

Teacher 2: No, I can't make every single meeting, all the time. Because if they plan it during a tier time, then I am kind of stuck.

Teacher 3: It's growing. It is not perfect yet. We have a couple of formal meetings throughout the week. Wednesday morning we have a meeting where the classroom teachers and I get together with either administration or some of the specialists, the reading specialist or math specialist, or the expeditionary learning specialist that talk about curriculum things…there we bounce some ideas off one another…or help we can grow together to support students. The other meeting, formal meeting each week is on Thursdays where we do some curriculum planning together and map out what the week would look like for the following week. As that is developing, I am trying to find what the real core of the subject...what the general ed. teachers need all the students to know and then support that in the classroom or outside of the classroom in the learning center or when we have our small groups. The only other thing that we discuss during that Thursday meeting then is some additional assessments that I can do, particularly in reading and sometimes in math at a little bit lower level where we can asses those core competency areas without the higher level text and so on. And then we will also share that data back and forth.

Teacher 4: We have team meetings. Sometimes on some students, it can be email a lot of times. Just as far as a quick communication. Sometimes we will set up just a meeting where the teacher and I will meet and talk maybe a few minutes after school. IEP meeting would be annually. I would say probably those would be kind of the most commonly known (ways of collaborating with general educators).

Teacher 5: Face to face, email, and kind of a case by case. Like with my fifth graders from math, I got their scope and sequence for what they are doing in class for math. I tried to do what they are going to do in class at least a day in advanced…so pre-teaching their lesson pretty much. So they have some more exposure to it before they get in class.

Researcher: Do you find general educators are receptive to you asking questions? And do they help collaborate in return? Or are you always the initiator?

Teacher 5: I would say I am always the initiator.

Teacher 6: I have been blessed with coworkers who I have good relationships with in K-3. So my colleagues are very good at asking for help, for which I am blessed with. We always start the year out by each student who has an IEP in their classroom, going through that student's IEP, talking about accommodations that they are responsible for. Modifications I will do. What para-professional time and para-professional support in the classroom will look like.

Researcher: Is that something that was in place when you came here? And they (general educators) were used to having a meeting like that? Or you kind of said I want to do this.

Teacher 6: Yeah (she started the beginning of the year IEP report). And that kind of helped build that rapport there. I think when the teachers realized that I would help support, it makes them a whole lot more willing to come and ask for help. A lot of our communication, because we both teach all day long, is done in the mornings. I pop into a lot of rooms or after school. I have a couple teachers who will send me one line emails, "just sending a paper up, can you work on this?" Or "next week is going to be this topic… Do you have time to pre-teach?".

Teacher 7: It is tricky because of time. But usually I try to get most of my stuff (get a plan of action set with general educators)in place at the beginning of the year and it is literally a day-by-day thing sometimes. It has to be adjusted. Step into their room in the morning, ask them how things are going. A lot of times I will just send out an email. Please let me know if you are having any student concerns. Grade report times I say, "Please let me know if you have any students where you have concerns. What are the concern areas?" As I am planning for an IEP, you saw I will often take my IEP draft in and go, "Here is what I am looking at. Would you agree? How do you feel about this? Is there something else that you think needs to be addressed?" So I am fortunate because I don't have a huge caseload and I have a couple teachers that have more than one of my students.

Evidence-Based Interventions

Teacher 1: Well at the beginning of the year, we tested, and that was really helpful. Extremely helpful because I was able to see their skill level with phonics…but after being able to look at those tests and seeing where they made their errors, then I have an idea, ok, this is where I have to use the intervention, because they can't get the E's and the I's…when I give the tests, that is how I can make my interventions. That is how I know. Because I can hear (pronunciation of words). I can look and see what the other tests have said, but I can really...when I hear them pronounce CVC words or mispronounce, that is how I know. I have to work with them, I guess. Bottom line.

Teacher2: It is off the diagnostic testing. So since they have been flagged, we should have had it narrowed down specifically to what area to progress monitor. And so that is the area that we hit. And then within a couple of weeks, if we are not noticing (gains), it may have been a fluke, then we have to re-evaluate.

Researcher: Ok, and then after you have chosen your intervention to use, how do you determine whether it is working, and then how do you keep track of all that data?

Teacher 2: The official way that we keep track of it is by the DIEBELS and DIEBELS progress monitoring. It is difficult, because I think we have so much data that we were using too much at first…and trying to make it harder. So we have tried to narrow it down. So that is how we determine if it is working or not. The decisions are based on the data points from the progress monitoring.

Researcher: I think you could probably speak to this. I have seen your notebook that you keep. Is that how you share with others? You have that notebook and you just pull the notebook and share those papers with others? Or is it a computer system where anybody can get in and look at a kid?

Teacher 2: Yes, it is (the notebook). In fact, I never showed you this one. But I have a Wiki page… I keep all the grade level data, all the past grade level data. And I keep all the protocols for testing, links to important sites that they (general educators) may need. Fact sheets off the state assessments. Yes, they have to have a pass code. They get into it and the administrator also. But that is the one thing we have found. They have it at their fingertips whether they are home or here.

Teacher 3: Well this latest group that I have...other than one student, I am lucky in that I work with them as IEP students. So I know what some of their needs are. And I continue to build on that. Newer student I am still trying to sort out, especially in a different grade level, I haven't had any contact. And I think the biggest problem or difficulty is that we are only given one piece

of data, which is a reading fluency. A number basically… and that really doesn't give you an indication of what the student is capable and what their needs are. So it is only through working with that student for a while that you try to get that sense. And I guess if like last year when we first started the program, I had a completely new set of kids. And that was difficult because it took a week or so to even get the sense of where these kids were.

Researcher: You said fluency is really the only piece of data that is universal. That everybody can go look at. I guess it is Aims Web. And everybody can go look at that. And that's how data is tracked in the school. Is that one fluency piece through Aims Web? Is there any other data that is tracked universally throughout the school?

Teacher 3: In the lower grades, they are looking at letter recognition and letter sounds I think they do.

Teacher 4: Well, like I told you the other day, starting last year, year before, it was recommended that if we had students that were participating at Tier 2, that these would be the materials that would be available and that certain interventionists would be responsible for using those based on those conversations on what student would go where and to whom. And Tier 3, same thing. Those materials have been prescribed to us to say that if they need comprehension, you will use this. If they need to work on reading rate, you will use this.

Teacher 5: Well with the trainings we had on the reading diagnostics, we look at the map scores and their DEIBELS scores and Kansas assessment somewhat. It is more on MAP and DEIBELS if I recall. And from that, we kind of have...we can place them. We basically have like a four box deal where it is...A matrix with like high rate of fluency, high comprehension then they probably don't need anything or high fluency, low comprehension and they need intervention. So we kind of group them. And then match to the intervention from there.

Researcher: Ok, so you would say that you strictly look at data and then based upon your data, then you choose an intervention.

Teacher 5: At this point, yeah because I am just unfamiliar enough with the actual interventions to kind of go by gut reaction.

Teacher 6: We have that list of interventions (district mandated) and then I typically look at where the student's needs are. Just an example, so if we have a kindergarten or even a first grade student who is severely behind, we are not going to dive into EIR immediately. We are probably going to back it up into, we have a program called Road to the Code that we use for phonic

segmentation and for initial sound fluency. So if their skill set is that much lower, where they don't know letters, they don't know letter sounds, we are going to back them up. However, if they are in that first and second grade thing, I normally give that EIR placement test to see what might be appropriate for them. We have found as a building that that typically places them quite a bit lower in the program than we would normally put them. So we have kind of made some adjustments to it. But it gives at least a rough guide of where to put them and what is going to look most appropriate. I have found that's the best program, honestly, for that first and second grade anyway…Early Interventions in Reading third through sixth grade, we have a couple different programs. Our building is unique in that we have Corrective Reading that was just a program that we really thought we needed because we were having so many older non-readers who didn't have the basic phonics. And what we were finding is most of the other programs geared for that age level were more comprehension programs, which is important. We get that but if they can't read the text, the comprehension wasn't going to come. And so basically, we were looking at...you know, we do a lot of data analysis. So when you look at like their DEIBELS scores, their error rate, those sorts of things, that kind of guides us either towards corrective reading or towards comprehension.

Eligibility Assessments

Teacher 1: Special education teachers are the only ones allowed to do those tests. And they (district office) are trying to get away from those tests. I only explained them (eligibility tests) at the IEP meeting. Unless for instance, we have a student that is on an IEP and he is at grade level according to all his MAP testing scores and the Woodcock Johnson, which I gave, and his grades. So I was able to talk to the principal, the school psych, and the teacher beforehand because I needed them to know that I was going to put him on consultation. So in that particular case, I was able to talk to all of them beforehand.

Teacher 2: Our school psych, she administers the IQ test. I administer achievement test. So it could be the Woodcock Johnson, or the Y-cat. And then our speech and language (specialist) administers their specialized test and then we all submit it to the school psych.

Teacher 3: The school psych does mostly all of the testing. What we do is some academic testing. But as far as for qualification and so on, she does all of the...She does all of the Woodcock Johnson achievement...Yeah so we don't actually do those as case managers or special ed. teachers.

Teacher 4: No, that would be the school psychologist. And we don't really...use placement tests, I don't know. I struggle with that word (placement) a little bit because really we are looking more at curriculum based measurements. DEIBELS, those kinds of things that would be certainly things that either she or I could do…They also do use some standardized measuring tools, like for behavior and that sort of thing. Like the BASC, I know we have used with several kids. But as far as the academic piece, I need to clarify that. It is usually more curriculum based kind of measures.

Teacher 5: Yes I am (the person who administers eligibility tests), and we have the QPS, quick phonics screener, which is really...it doesn't really tell us where to place a kid. It just kind of gives us a broad idea…and then Kaleidoscope has assessments and EIR has an assessment. Spelling mastery, which I used for writing but it is also really good for reading. That has a placement test that I have done. And then Envision, the math curriculum, it has the whole diagnostic intervention portion that has placement tests by grade level.

Researcher: What about achievement tests such as the Woodcock Johnson? Is that used in this district?

Teacher 5: I have heard it every once in a while. But no. I haven't actually seen one.

Teacher 6: : Our district as a whole has moved away from the testing for special ed identification. Typically it would have to be a special case for there to be given a standardized assessment…Curriculum based measures are what we use…we have as a district, we always administer the DEIBELS, the Measures of Academic Progress (MAP) in both math and reading, and we administer those in the special education department, but that is given across the board to every student. Should there be anything else, like an IQ test... An achievement test, all of those. Let's put it this way. I have not seen one of those even this year yet, be given. If they are specially requested, our school psychologist typically handles that.

Teacher 7: We use curriculum-based measures so typically all of our data is collected through district-wide, statewide assessments and classroom data. If there is specific data needed to write or to look at something like sight words or whatever, yes. That would be me. For example, we just had an evaluation of a kindergarten student. I took care of collecting the data for his kindergarten teacher on the curriculum. Mostly because he was a behavioral issue. So she

needed some help doing that. So yes, I would say if there is specific data, I am the person that would collect it.

Paperwork

Teacher 1: Honestly, you know, I spend a huge amount of time on paperwork... I would say paper work involves a good 50% of the day. I really do think it is 50%. And I am doing a huge portion here but that is not even counting what I had to do at home because I don't have time during the day. So I would say a good 50%.

Teacher 2: Probably 25-30%.

Researcher: Ok, but we have had a discussion where you take a lot of work home and work a lot at home.

Teacher 2: Yeah, or just come into work on Sundays or Saturdays. Or stay late.

Researcher: Ok, do you think that if you didn't...if you just did your contract days, do you think it would all get done?

Teacher 2: No.

Researcher: You would have to up that percentage more?

Teacher 2: Oh, absolutely.

Teacher 3: I guess during the academic day, I guess you could call it, when students are in the building. It is kind of minimal because I try to do most of that stuff either before the kids get here or after they leave or at home. So I mean maybe you get one hour out of the day that you were doing things (paperwork) not with a student directly I guess.

Teacher 4: I think the paperwork. I know you mentioned that. That is huge. And I think I also mentioned with you just the meetings. Being the only teacher in the building. My specific situation is a lot of missed instruction time. A lot.

Researcher: And you showed me your calendar where you were going to your principal and trying to visually show her exactly how much time is missed (on paperwork and meetings)

Teacher 4: And again, not that she can change anything because it is not really anything we can do. But that it is a lot of instruction time that we missed. And meetings generally take at least and hour, if not, an hour and half. And with a re-eval or a new initial eval, sometimes those can take 2 or 2 and a half hours

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Teacher 5: Probably about 40%. (time out of day spent on paperwork)

Teacher 6: I would say 15 to 20 percent. Yeah. Just thinking through three times a week I have duty. And that is 20 minutes each morning. Emails take up a huge chunk of time. Just because that is how so many teachers communicate.

Teacher 7: Well I try to limit my emails because we don't want to have email issues. Meetings. If I could spend the time that I do on paperwork and meetings, workings with students, I might not have any kids. We try to confine our meetings to Mondays. It usually never works. We have a set day for our improvement team meetings. Mondays. But you know, if I get called to a meeting for a particular reason, you know, I have to rearrange my schedule. If I were to take my week and say it is 100%, I would probably say 70% of my time is spent working with students. And 30% of my time is spent meetings and paperwork. And really, I need to spend that time on paperwork in order to do accurate data collection. But I am going to tell you, that would be my dream world. The problem...and I say that because I think the paperwork is just as important as the actual student work. The meetings, I hate meetings. But nobody likes meetings. I just don't think I get...I often times don't get my plan time so my paperwork time is usually done Friday afternoons. Like I will probably do, spring break is coming up. I will probably spend a good full day, workday, 8 hours during spring break doing paperwork.

Instructional Strengths

Teacher 1: My strength is that I can wait for the other student, the one that is a little slower to catch up. I don't have to keep on moving because I have got 20 other kids. My students, when they are in here, if they are a little bit slower, even when they are working in a group, if they are just a little bit behind, I can cut out things very easily and say, "Ok, you don't have to write that, just give me an answer." So everybody stays together. Everybody knows what is going on. It

feels very, I think it feels very safe for them. Everybody else is kind of in the same boat and they don't feel like the spot light is on them…that is one of the things that everybody, when they come into the resource room, they are made to feel like you are pretty smart. And I constantly think they all know during the day period I joke with them but they all know I think they are brilliant. And I like to tease them, but my gosh, they do know that they are valued.

Teacher 2: I don't think I am really strong at anything. So that is difficult to...

Researcher: If you could pick one Instructional practice like modeling, feedback, questioning that you think you do a lot. How about that?

Teacher 2: But it is not organized and that is just being very focused. And yeah.

Researcher: So being focused?

Teacher 2: Yes, really trying to narrow where we are going with it. And trying to organize the way to get there. And try to work more preventative, and that is why...although I don't work with the students in the Tier 2, I do all the data for the Tier 1 or Tier 2. So to be preventative.

Teacher 3: Well I think part of what I hope would be one of my strengths is trying to figure out where a student is struggling through questioning and so on. Sometimes what I like to do is just listen to the student as either, say in a math problem, they are solving the problem. Or in their reading, see where they are struggling and maybe ask them some questions and figure out how they are thinking, I guess. And then helping them develop some strategies that would work to maybe bolster what knowledge they have. So that they can fill in some of the holes.

Teacher 5: : I would say the modeling and primarily questioning. Feedback is probably my weakest point. Aside from good job and that kind of thing. Actually reviewing scores, overall scores, not as much. Kind of depends on the kid.

Researcher: So you would say modeling is your highest and then probably feedback you think is your lowest?

Teacher 5: Yeah.

Teacher 6: I really have been working this year on giving feedback that is specific for each student instead of the generic good jobs and things. I would say my feedback is also frequent even when it isn't as direct as I want it to be. And I think we also do a lot of modeling in here. I do, we do, and then they do. It tends to be our main rhythm of things.

Teacher 7: I think one of my biggest strengths that I bring to the table is my ability to collect accurate data. I think that is really important. With the students, I think just building rapport is really important because a lot of these kids have been failing. And they are at a point where they are...you know, they don't like being at school. And so building rapport for them to enjoy the process of learning. And then I would say probably all of those things, I do the modeling, the guided practice, the independent practice, the going over, looking to see if they are getting it. It is always really... I think that is probably one of my gifts. I can see how much support a kid needs...

Difference in Instruction in Advanced Tiers

Teacher 1: In tier 2, it is supposed to be very specifically driven, and so we are working on skills. But when I am doing the tier 3 pullout, even that is now, from what I understand, supposed to be changing a little bit. We have always just done like, I have done the comprehension, I have done the teaching. And so now that is supposed to be also specific (targeting skill deficit). Tier 3 to me, constantly changes. I think it goes, the pendulum swings from one end to the other and in a given week, it could change, what's important depending on who you are talking to.

Researcher: And so what I hear you saying is that it's this distinction between tier 2 and tier 3 is kind of hard.

Teacher 1: Yeah, it is for me.

Teacher 2: In Tier 3…The progress monitoring increases. We really narrow it down and the instruction is more direct. It is highly...just very systematic, explicit. Yeah, lots of progress monitoring. We try to strictly stay with the research-based ones (interventions). Rather than just going on hunches, or strategies they have heard about. Tier 2, the progress monitoring isn't as frequent. Probably parent interaction is also one thing that is not as frequent. I know that is different but it does play a part. And then it is...first of all, it is less time. It is even less time because not only is it the tier two...the pull out. I mean it is how much we have to go in to support the students that are in tier 3 vs. tier 2. So instructionally, there is more support we have

to provide even there in the classroom. And then on instructions, we are able to go off a little bit into...to make it a little more fun. And to add more to the instruction, rather than tier 3.

Teacher 3: Well I guess I look at it, not necessarily according to their tier but I try to get a sense of what the student's needs are. So let's say whether it is a math or reading group that we are working in, I will try to target the questions according to what their specific needs are. Or at least what we have been able to assess as their needs. So I guess the thing that I'd do differently and maybe we couldn't do it with all the differences in schedule this past few days...but with our normal reading groups, I have that split into two groups. So I have a little bit higher group and then the lowest group. And with the lowest group, we are really working on the phonics and more word work and basic skill instruction... and then with the higher group, we are trying to work a little bit more on fluency, expression, and so on. Targeting them at a little bit higher level as far as their books that we are reading and so on. So that is one way we do it. But then, like with the math, I might give different work to different students according to what they are struggling with. And I guess it also depends on the particular thing. If it happens to be fractions, some kids struggle a little bit more. I guess today, we were working with symmetry and geometry and some of the kids that do well with most of the computation work, started with that. So we worked a little bit harder with that.

Teacher 4: It is very specific as far as the instructional materials that we present. And those are materials that have specifically been determined that either the reading teacher in the building or the resource teacher in the building will be using during those intervention times. And I kind of talked to you a little bit about how we decide who is going to be responsible at the building level for providing those supports.

Researcher: Ok, and so specifically, tier 2, that instruction is using those materials (district mandated interventions) and it is also using those materials in tier 3?

Teacher 4: Could be. It could be. It might be using just a piece of that material and then with tier 3, you might have two materials. You might be working on comprehension and working on activities for rate. Which I would think looking at the students that I have, that would be the case. Is that we are using one program to address the comprehension component. And then we might use read naturally to address the reading rate. So it is kind of an extension of whatever that first 30 minutes is because with those kids that are intensive, usually you are looking at both areas. If it is just tier 2, probably what we are looking at is, "Do we need to focus on comprehension or do we need to work on reading rate?" And with those, we would look at that time component and then decide which program would be used. And that would be with a student that has a reading goal on their IEP. If they didn't have a reading goal, then either the classroom teacher or maybe the reading teacher would be serving more of a regular ed component there as far as setting.